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# PALESTINE EXPLORATION FUND.

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Patron—THE QUEEN.

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## *Quarterly Statement*

FOR 1873.

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MAP  
to illustrate  
LIEUT. CONDEKS LETTERS



THE  
PALESTINE EXPLORATION FUND.

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PREFACE.

IN beginning a new volume of our *Quarterly Statement*, we are anxious to ask our Subscribers to bear in mind, that we are still far from being assured as to the stability of our position. We have purposely asked for a very small sum annually, only £5,000 for the next five years or so. That amount will enable us to carry out all our objects. We require £800 a year for home expenses, of which about £400 is wanted for management, the other half being spent in publishing, illustrating, and distributing our Reports. In other words, we can do all our work on eight per cent. of the income we ask. But it must be remembered that we have never received anything like this income.

We have two main lines of work, the survey of Palestine and the examination of Jerusalem. The former has been conducted during the last year with as much vigour as was possible. More than a thousand square miles have been plotted, and when we can send out two more men to help, it will go on with double the expedition. It has been decided to open a special fund for Jerusalem purposes, to which subscriptions are invited. A donation of £50 for this purpose has been recently given by Mr. Tyssen Amhurst, and another of the same amount for the Survey.

If any additional motive were wanted to urge on the work, it would be found in the despatch of the American Expedition. The two great branches of the English-speaking race are now working side by side. The leader of the American Expedition is an officer

of the United States Engineer Corps, Lieutenant Steever. He is accompanied by Professor Paine, as archæologist, and by Mr. Vandyke, jun., of Beyrout. At Beyrout itself are the head-quarters of the Executive Committee of the American Association, composed of the United States Consul-General, the Rev. Dr. Thompson, and the Rev. Dr. Stewart Dodge. As has been stated before, their work will be east of the Jordan over a district comparatively unexplored, and where, doubtless, there will be made discoveries of the deepest interest. There may even be more Moabite stones. We do not *expect*, but we *hope*.

The letters and reports of Mr. Conder and Mr. Drake require no explanation. They are, and will henceforth be, accompanied by a map to show the progress made and the position of the Surveyors. With regard to the tracings already sent home, they are in the office of the Fund, and can be seen by any visitor. They cannot be published until a complete "sheet" has been received. This may not be for more than a year, as the work is spread over a great many sheets, but does not yet cover one single one. We have been kindly promised another meteorological report from Mr. Glaisher for our April *Quarterly*. This will also contain, besides the usual reports, a paper on Mount Gerizim by Captain Wilson. Other papers of interest will appear in the course of the year.

We commend our recently published little book, "Our Work in Palestine," to our Subscribers. It is written with a view to explaining not only what the work has been, but the reasons for it and its aims. We are happy to say that so far its success has been undoubted. Within three weeks after its first appearance we were enabled to order the fourth thousand to be printed, an edition having been simultaneously published by Messrs. Scribner, Welford, and Co., of New York. A very low price has been put upon the book, in order to bring it within reach of all. Considerable corrections have been made in the fourth thousand.

# THE SURVEY OF PALESTINE.

LIEUT. CLAUDE R. CONDER'S REPORTS.

## VII.

### THE PLAIN OF ESDRAELON.

JENIN CAMP, 21st Sept., 1872.

A critical epoch in the Survey of Palestine has just terminated in a most satisfactory manner, in the connection of the triangulation extended from the first base line at Jaffa with the second base line just measured on the Plain of Esdraelon.

According to our calculation, which is not of course so minute as that to be made in England, there is only a difference of about .03 per cent. of its length of four and a half miles between the base as *calculated* from the triangulation, and the base as *measured* on the Plain. This may be considered as extraordinarily accurate when the difficulties encountered are considered, for the triangulation has now been carried through a strip of country averaging some ten to twelve miles in width and for a distance of sixty-five English miles, in addition to which it must be remembered that cairns have occasionally been destroyed by the natives, the observations being thus rendered less reliable, and that the flickering of the mirage during the day in summer has made it difficult to see an object distinctly at a distance of eight or nine miles in the hills and even of three or four on the plains. The extremely difficult nature of part of the country has of course delayed the progress, but not interfered with the accuracy, of the work.

The total extent of country at present completed is 750 square miles, and upwards of 130 square miles will be added in another week, as the triangulation from the present camp is finished and only the detail remains to be filled in. This is a more rapid progress than was expected, and our arrival at Jenin was a fortnight earlier than had been calculated.

The new base line lies within four degrees of north and south, and is approximately four and a half miles in length over the flattest part of the great plain. Its ends are marked, in a most durable fashion, by cairns of stone set in a sort of mortar of fresh-slaked lime. The southern end has a roughly circular platform of large blocks and of some 3ft. in height and 9ft. diameter, filled in with smaller stones, and the top levelled and covered with lime to form a firm basis for the theodolite, between the legs of which a small conical cairn was placed.

At the northern end, in the middle of a ploughed field of loose heavy volcanic soil, it was more difficult to find materials close at hand. A large mound, some 8ft. high, was therefore made of earth round a fixed centre, and faced with stone well covered with lime. Before observing from this point, which was the last to be used, the mound was partially levelled, and a platform so made round the centre. The theodolite was then placed over the centre, and the mound will be rebuilt as before.

The base was measured from north to south and from south to north, and was further checked by observations from its ends and from a point near its centre. The triangulation will be extended from it northwards, and a good line, some fifteen miles in length, is obtained at once nearly at right angles to the centre of the base.

Such is the present satisfactory state of the Survey, which is now only in want of the additional men asked for from England to reach the required rate of progress.

The amount of archæological discovery between this camp and Nablus has been very small, the few ruins, such as the church and columns at Samaria, being already known, and excavation would not bring to light anything of value.

Near Sanur, however (the ancient Bethulia of the book of Judith, as some suppose), a ruin of some interest was found, and a sketch is forwarded. An isolated hill or tell called Tell Khaiber rises on the south-east of the Merj el Ghurruk, or "drowned meadow," a large marsh formed by the water from the surrounding ravines, and without any outlet. In winter it has some 4ft. of water on the average, but is dry in summer. Sanur is situate on the edge.

On this "tell" are the ruins of a small fort and of a considerable town, but the latter are quite indistinguishable, and only in parts indicated by the colour of the soil.

The fort is roughly some 50ft. square, and two or three courses of masonry, about four feet thick, consisting of ashlar of tolerable size, and set in good mortar, remain. On some few stones there is the appearance of a marginal draft, and over the entrance, which was on the south side, was a flat lintel. The proportions of the stones are not, however, so unequal, in comparison of their length and height, as in the megalithic work of the Haram.

There are further traces around the fort of an external wall with a postern, and of several buildings of moderate size but almost undistinguishable form. Two cisterns, lined with very hard cement, one of which is of considerable size, also appear farther down the hill, and the grey soil, which indicates the former existence of buildings, appears on every side of the "tell."

Local tradition makes this the palace of a Jewish king whose daughter had her summer residence in the marsh. Perhaps a clever theorist may connect this account with the history of Judith, Bethulia being so close to Tell Khaiber.

The great plain, on the edge of which we are now encamped, is of great interest from a historical and from a geological point of view.

Historically it has been called the "battlefield of Palestine," and here, be it remembered, the "battle of Megiddo" (it is supposed) will close the list of contests in the Holy Land.

Whatever may be said of the future, the history of the past does not, however, bear out this assertion. The great battles of Joshua were fought far to the south. The victories of David were on or near to the plains of Philistia. The invasions of the Syrians were directed against the country round Samaria, and the battle of Hattin, which decided the fate of Christian supremacy in Palestine, was fought out farther north.

Only five contests are chronicled as occurring on the Plain of Esdraelon: the defeat of Sisera, the victory of Gideon over the Midianites, and the overthrow of Saul on Gilboa, and of Josiah at Megiddo in Bible history; lastly, in more modern times, Napoleon's so-called battle of Mount Tabor.

A brief glance at these battles confirms, however, the opinion that the plain is not, as its appearance on the map would lead one to suppose, specially fitted for the deployment of large numbers of troops or for the successful use of cavalry. The scene of each battle was near the same site, and for this there must, of course, have been a reason. The method and tactics employed by the Jews resembled those of the old mediæval wars of position, as is abundantly manifested in the accounts in the Bible. Each army encamped over against the enemy on a hill or on rising ground with a valley between, and thus the attacking force, unless its leader had advanced views on the use of stratagem and the secret of turning a flank, was inevitably at a disadvantage, and for the same reason a broad plain not offering such advantages was never chosen as the site of a battle.

In the first instance the camp of Barak was on Tabor, and Sisera advanced against him from the Kishon and the Maritime Plain. The counter attack against the heavy chariots labouring through the volcanic mud, which, at a time when the Kishon was full of water from the storm, must have covered the plain, secured for the discomfited Canaanites a defeat more disastrous than would have been expected in an open country, such as that on the north-west of the Plain. In the subsequent contest between Gideon and the Midianites, this open country seems to have been avoided; the camp of the former was on the high ground near Jesreel, whilst the invading bands, like the modern Bedouins, had crossed the Jordan, and advancing up the broad valley (W. Jalud) to the foot of the hill Moreh (the modern Jebel ed Dâhy, or, as it is often called, Little Hermon) had camped securely in the low ground and spread for plunder of the harvest and of all the possessions of the Israelites "as grasshoppers for multitude." The attack from the high ground on this occasion, accompanied by a strata-

gem, was again successful, and the pursuit was towards the east and across the Jordan.

The third battle was, however, by far the most important of the three. The Philistines, under Achish, king of Gath, in Philistia, are here found in the northern plains, and it is possible that the name Wady Jalud, or the valley of Goliath, may still be a mark of their wide dispersion in Palestine. Their camp was at Shunem (the modern Sulem), once more on the slope of the Hill of Moreh, and Saul, as did Gideon, chose the neighbourhood of Jesreel for his head-quarters, and his line of retreat along the high ground of the chain of Mount Gilboa, and to the hills south of the plain. Considering the relative position of the enemy, we see that Saul's expedition to the cavern at Endor, situate north of the Philistine camp, must have entailed a circuitous and lengthy expedition in order to turn their flank on the west and gain the opposite side of the hill, whilst the peril of thus placing their whole army between himself and his camp was also very great. The following day brought his entire defeat; and when we observe that the flight lay along the hills of Gilboa, it seems evident that the main attack must have been not from the north, where the valley is deepest, but on the west, the left flank of Saul's army, where the plain rises into the eminence on which Jesreel (the modern Zerin) stands.

The last battle is of more modern times, for of the defeat of Josiah in the valley of Megiddo there is no reason to speak here. Kleber, with a corps of only 1,500 men, was brought to bay at Fuleh, a little village on the west slope of Jebel ed Dâhy, by the whole Syrian army of 25,000. From sunrise to mid-day they held their position against these overwhelming odds, but a single shot from Napoleon's relieving force of 600 men caused a panic and a flight, in which many Syrians were drowned in the Kishon, then inundating part of the plain.

In each of these accounts we recognise the same peculiarity. In the three later the site chosen was almost the same, and the so-called battle-field of Palestine seems even in those battles fought in its immediate vicinity to have been avoided, the camps being posted on the hill-sides to the east or north-east. The reason is evident; for laying aside the fact that the Jews were never a cavalry nation, the plain itself, covered with a crumbling soil, over which native horses advance with difficulty in summer, and which in winter presents a series of impassable marshes, could never have been considered a good field for the use of this arm.

The geological view of the subject is intimately connected with the historical, and, indeed, in the study of a new country there is no science so generally useful as geology. Not only does the character of the district, its vegetation, its fauna, its scenery, its cultivation, and even the style of towns and villages, differ with slight geological changes, but its history, its civilisation, and more especially its military history, depend to a very great extent on its geology. Thus when we

observe the camps at Shunem or at Jesreel, we find them to have been placed on the firm ground and gentle slopes given where the limestone is on the surface, whilst the flight of the defeated Sisera is across the volcanic mud which covers the plain.

The formation of this great plain, as well as of the smaller ones in its vicinity, is due partly to volcanic action and partly to that of denudation.

A thick bedded white limestone, containing large discs of flint, and gradually merging into the marl of Nablus above, and into a compacter and more thinly bedded soft limestone beneath, originally covered the country from Samaria to Nazareth. Though hard externally, when exposed to the air, this stone is internally as soft as the softest "kakouli." But beneath lay the truly hard dolomitic limestone, such as previously described at Neby Belan.

The present character was given to the country first by a number of eruptions of basalt which occurred in at least three distinct outbursts. One formed the cone of Jebel ed Dâhy, the so-called Little Hermon; a second appears as a distinct upheaval of the strata, from beneath which the basalt has flowed down the side of Jebel Abu Madawar (part of the Gilboa range on the south-east of the plain). The third, and by far the most extensive, is on the west, where on Jebel Sheikh Iskander, one of the highest hills of the neighbourhood, cruptive basalt and stratified volcanic mud are found near the summit on the east, and two isolated cones of basalt on the west, in continuation of the ridge. The Neocomian and other strata are here found to be greatly contorted, but the general dip is upwards from the south-west of the outburst, showing the contortion to be due to this eruption.

The character of the basalt differs considerably. At Jebel ed Dâhy it is black, hard, and compact, with a large amount of iron. At Zerín it is of similar character, but covered so thickly with white lichen as to be hardly distinguishable at first from limestone. On Mount Gilboa, where a regular dyke can be traced below the main outburst, it is of looser consistency, in some specimens more resembling volcanic scoriæ, with less iron and large crystals or distinct agglomerations of augite. On Jebel Sheikh Iskander, again, it is soft and crumbling, in many parts reduced to *débris*, and here volcanic mud is also found.

On observing the lowest strata naturally nearest to the basalt, they are found similar to the hard dolomitic beds of Neby Belan, which also are visible at the bottom of the deepest wadys west of Jeba and north of Mount Ebal. They are the most contorted, and have the greatest dip of all the beds, from which it may be concluded that even before this upheaval they were not conformable with the upper beds. They are hard, compact, worn into caverns by water or gaseous action, and extremely crystalline. From these characteristics, and from their proximity to the basalt, it seems undoubted that they are metamorphic in character (a fact not, as far as I am aware, before noticed), and hence we may conclude that throughout Palestine, wherever they crop out,

the basalt, or some species of Trappean rock, is not far from the surface. The extent of volcanic action must therefore be greater than is generally supposed in Palestine, a theory maintained by Mr. Drake, whose discovery of an outburst as far south as Jerusalem is most valuable in its support.

The action of denudation was also concerned in the formation of the great plain. The strata being thus broken and tilted in every direction, the harder formations were raised on each side, and the softer being worn gradually away between them, were overlaid with a soil consisting of the *débris* of the basalt. Hence we have at last the present surface, a broad plain with rich soil, and surrounded with limestone and basaltic hills, presenting sudden and precipitous cliffs, as above Zerin and below Nazareth, while on the tops of the hills only the original soft chalky limestone remains on the east and on the west alike.

With such variety of geological formation some variety in scenery might also be expected, and is found to exist. The soft white limestone gives low hills, on which the olives flourish, and caper and other shrubs abound. Near to the springs, which are not, however, numerous, gardens with figs and pomegranates also are found. The villages are larger and more wealthy than in the hill-country of Judæa, and perched on the hill-side, or on isolated hillocks in the plains. Numerous gay butterflies of European and African species, including the copper (four or five species, some similar to the English), and one or two of the genus *vanessa*, but more of smaller size, belong to this scenery; the cicada and mole cricket evidently alternate in the olives by day and by night; the species of lizards are large and powerful, and dark grey, as a rule, in colour, and the chameleon is not seldom found. Wild animals are few in these cultivated districts, and the birds principally of the smaller genera, though vultures, eagles, harriers, and hawks are commonly seen.

The scenery of the great plain itself is, however, of a different type. The long flat expanse is divided into patches, which, viewed from the summit of Jebel Dâhy, seem with the roads to radiate from the villages on the low knolls of limestone rising out of it. These consist of fields of Indian corn, of simsim or sesame, of corn, and occasionally of cotton. Fallow land in dark brown strips intervenes. Near Jenin and Sileh (villages on the border) a few palms give a truly oriental character to the scenery, springing round the minaret of the mosque, and hedges of prickly pear surround many of the villages. The animal life also differs slightly in character. Huge locusts, and species of *truscalis* (the bald locust of Scripture), are occasionally seen; and of the smaller species, with red, white, yellow, blue, and green wings, swarms may be disturbed at every step, reminding one of the appropriateness of the simile, "like grasshoppers for multitude." Several species of the praying mantis, with the abdomen curled curiously upwards, are also common. The lizards are of small species, and agree in colour with the brown soil. The birds most common are the swifts and swallows, with the

ever-present birds of prey. The howling of jackals, the groups of gazelles, and the wild boar coming to the water at sunset, are all more ordinary sights and sounds than in the hills.

The hard crystalline rock of the lowest formation gives yet another type of scenery, barren and desolate as can be imagined; the hills are tame in outline, with deep narrow ravines intersecting them. Nothing but a few thorny shrubs and dry grass seems to grow on them, and the attempts at cultivation, unlike the laboriously intricate terraces of the softer soil, are few and meagre. Here on the tops of the hills the magnificent genus *Papilio* is found alone; other insects are more rare; and wild animals, including the jackal and the gazelle, abound. Coveys of partridges (*Caccabis saxatilis*) are numerous, but very wild.

This scenery is again modified, where the basaltic *débris* forms a soil, as at Sheikh Iskander. Here the hill-sides are densely covered with shrubs and trees, which would be large were it not for the destructive habits of the natives, who for the sake of the firewood burn or cut out half of the trunk and three-quarters of the branches. The principal species are the *Quercus cocifera* and another oak, the arbutus in shrubs, and the carouba. In many parts the bushes are almost impassable and of considerable height, presenting a refreshing contrast to the dull parched grey of the olives, and of the limestone in the more open country. It is in country like this that the leopard, the cheetah, the wild boar, and other game are found on the range of Carmel; and the ever-present birds of prey here find a more numerous quarry.

A good deal that is new might yet be said with regard to modern Palestine, considered from a pictorial point of view. Were it possible to bring a man of good artistic taste into the country, ignorant of its past associations, and of all that has been written on the subject, there can be little doubt that his descriptions would be new, and very astonishing to many; probably quite as much so to the class of writers who can see nothing to admire in Palestine, as to the author who describes the "ice-clad peaks of Hermon."

Grandeur of form we may look for in vain, and except in such scenes as that of the great plain as seen from above Nazareth, the extensive views are rarely striking. Barren hills, dry gullies, tame and commonplace outlines abound; but the charm of a vivid oriental colouring still remains to please an artist's eye. The rich hues at sunset, the peculiar tints of some of the limestone hills—such as Mount Ebal—which reflect the blue of the sky, the occasional afternoon effects with long-drawn shadows, and of brilliant contrasts of light and dark on a cloudy day, would, if caught and treasured, lead any one inspecting a series of such sketches (from which the *commonplace*, as in other countries, had been banished) to believe in Palestine as a very picturesque country.

Nor must the appearance of the inhabitants — their dark skins,

bright eyes, white teeth, and wonderful taste in the combination of the brightest colours, be forgotten. Nothing more picturesque than a road, the women in their red veils and long-pointed sleeves carrying water; the dark camel-drivers, in black head-dresses, and striped brown-and-white abbas, riding on diminutive donkeys before the train of clumsy, swinging, dull-coloured camels; the rich sheikh, in a purple jacket, scarlet boots, a thin white cloak, and a yellow head-dress, his grey mare with a scarlet saddle, and long brown tassels at its shoulders, alternating with the herds of black goats and diminutive red oxen, could be desired.

In Jerusalem itself this colouring is not less marked. The costumes are far more varied, and the colours gayer, whilst the effects in the surrounding country are equally brilliant at times. The pink light on the sides of the Kedron valley, the rich ochre colour of the Haram walls, the dark grey of the city fortifications, are all points on which an artist would look with pleasure. But above all, the interior of parts of the Haram, its dusty soil covered in spring with flowers, and its dark cypresses round its richly-coloured mosque, are especially impressive. Nor is the gloom of the interior, through which the elaborate mosaic arabesques, the gilded inscriptions, and capitals, and painted woodwork, and glorious glass windows gradually come out as the eye grows accustomed to the sudden change from the glare without, less fine; while the gaily-dressed processions, the sombre colouring of the negro inhabitants of the shrine, the flights of pigeons, here finding a sanctuary, lend the finishing touches to a picture which really recalls the idealistic scenes of the "Arabian Nights Tales."

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## VIII.

### PROGRESS OF THE SURVEY.

R. E. CAMP, UMM EL FAHM, *Oct. 10th, 1872.*

From the camp of Umm el Fahm, which will to-morrow be broken up, the first thousand miles of survey have been completed in close upon a year of unintermittent work, including the satisfactory measurement of two base lines, the completion of a long narrow strip of triangulation, which, in spite of the awkwardness of its shape, necessitated by other than strictly survey considerations, has been kept correctly in place as regards its longitude, and finally the completion of the detail and of a great part of the hill shading.

My first report on this subject was dated the 18th of July, when 560 square miles were completed. Thus in the last three months 440 square miles, or  $\frac{44}{56}$  of the whole amount, were executed. Thus, though the rate had till July been gradually increased, it has been still more so since that time, a fact due in great part to the increased facility of travelling in the country last traversed, which has allowed of the use of larger triangles, and of the more rapid execution of the detail. Of

the correctness of the work my seventh report gave satisfactory proofs; and of its execution the Subscribers to the Fund will be able to judge by the tracing sent home in July, which will, no doubt, be soon published and circulated.

The country surrounding our present camp is unusually picturesque, and but little known to travellers, as it is out of the ordinary direct route.

Immediately in front of us, on the south, is the volcanic summit of Sheikh Iskander, a point conspicuous on all sides from a great distance, forming the boundary of the view northward from the Jeba range of hills, and rising above all the surrounding country, as viewed from any part of the plain.

As before noticed, the hard dolomitic limestone is here tilted up in every direction towards the summit of the hill, and the upper strata are worn away from over it by denudation. The slopes are covered with the thick shrubs and underwood which extend southward to the small plain east of that of Esdraelon, known as the Merj Arrabeh, and the same kind of country extends westward, where, however, oaks of considerable size, with a species of hawthorn and an occasional terebinth, make the scenery still more varied in character.

The great Wady Arah, which runs westward, just north of Umm el Fahm, makes a sudden division between this district and a second extending along the west side of the plain to Carmel, apparently a dry desert, though in reality it is all arable land, watered, as is the Sheikh Iskander district, by numerous springs and deep wells. The geological formation is the hard chalk containing flint bands, which has been before noticed, and beneath, as visible on the sides of the deepest wadies, is the soft white marl or chalk first noticed near Nablus. Thus the succession of the strata, as observed here, is identical with that noted at Jifna by Captain Wilson, and except in places where the last named formation seems to thin out, these three successive kinds of limestone are continually recurring.

The appearance of the country to the north of the camp is gradually modified westward, where a white dusty soil is dotted over with clumps of oak (ballut) spreading over the gently undulating slopes, and presenting what would be park-like scenery, were it not for the absence of grass, which in summer is replaced by corn, the whole ground being arable. Two or three beds of winter streams are crowded with shrubs, and beneath one of the volcanic "tells" or mounds of Sheikh Iskander flows even at this, the driest season of the year, a stream, though but of inconsiderable amount. Round its bed brambles and young willow plants flourish, and the course of a second and larger stream near Lejjun is marked by the bushes of epilobium and large plants of a kind of mint, as well as fennel brambles and smaller plants.

The volcanic "tells" require particular notice, as their discovery shows the centre of irruption at Sheikh Iskander to have been even larger than at first supposed. Farther north, at Lejjun and in its

vicinity, these outbreaks again occur, as well as near Endor, on the north side of Little Hermon, thus carrying out more completely the theory of the formation of the great plain, as noted in Report No. 7. On Sheikh Iskander there are two of importance, one near the main outburst of basalt on the hill, in which a sort of volcanic mud has lifted the top strata of the limestone and poured out at the side of the mound so formed, and a second where a sharp cone of the same substance, in layers of various colour, is capped with limestone. The character of the mud in the first, when minutely examined, resembles a disintegrated basalt; in the second, which is to the west, near the Ain Sheryyeh, blocks of hard, dark, compact, ferruginous basalt are embedded in some parts, and fragments of limestone in others; whilst beneath, separated by a thin band of limestone, the basalt appears as a rock in the sides of a small precipitous gully, to a depth of twenty to thirty feet. Here, as a native states, a Frenchman from Damascus pitched his tent, and extracted copper from the mud. There is, however, no appearance of either a lode or of nodules, as far as careful observation could show.

The "tell" near Lejjun (the site of the famous Megiddo) is still more curious. It consists of hard basalt, and though of considerable height, it does not appear in any way to have affected the limestone strata, which are nearly horizontal, the formation being the hard chalk, which is not changed or metamorphosed in any degree.

Several of the views in this country are more picturesque than any we have yet come across in Palestine. Thus, in early morning, from the top of the hill the eye wanders over the broken outline of the hills south of the great plain, backed by the long veil of transjordanic mountains, and over the long extent of the plain itself: a scene which, with the dim shadowy effect of sloping light, must be allowed to be beautiful by even the least prejudiced in favour of Palestine scenery.

Looking again northward, a similar scene, taking in the volcanic peaks of the Hauran and the huge blunt-pointed Hermon in dim distance, with the Nazareth range, the shapeless outline of Tabor, and the Little Hermon's conical summit, the great plain again stretching below, all towards the foreground, presents a striking distant effect as viewed in evening light and shadow.

The archaeological notes collected since I last wrote are not numerous.

The supposed temple at Abu Amr has been noticed by Mr. Drake in his last report. I send drawings of the details, a small plan, and a sketch, showing the present strata of the ruin. The floor is a couple of feet below the general level of the rubbish, so that possibly excavation might bring some inscription connected with the edifice to light; but some time would be required to investigate the place properly.

The details are pretty well preserved, and are of a debased style of art, resembling some of the first century work at Jerusalem.

Besides this, and the discovery of a ruined khan, and of a building apparently of large extent, and probably, from a capital and other indi-

cations, originally Roman, the plan being now entirely lost, nothing of any importance has been noted.

In fact, nothing is more surprising, and especially in the part of the country at present being surveyed, than what may be briefly described as the "ruins of ruins" continually met with in every direction.

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## IX.

### EXPLORATIONS IN JERUSALEM.

R. E. CAMP, UMM EL FAHM, Oct. 15th, 1872.

Another visit to Jerusalem became necessary for the arrangement of survey stores, &c., and the following notes are the results of a sort of reconnaissance carried on in my leisure time during a week spent there.

By far the most interesting objects of study is the gradually increasing collection of Moabitic earthenware of Mr. Shapira. The prejudice at first felt in England—though not in Jerusalem—with regard to these unique specimens of ancient symbolical art, has prevented my sending any remarks on this subject to the Committee, though such sketches as Mr. Drake and I had time to make, which fairly represent the character of the collection, have been forwarded from time to time. Now, however, the late visit of Pastor Weser and of M. Dinsberg (a German resident at Jerusalem) has placed the authenticity of the pottery beyond dispute, and a short abstract of the results of this journey may prove interesting. It is compiled from the notes taken from the various accounts of Pastor Weser, Mr. Dinsberg, and Mr. Shapira himself.

It appears that of this pottery smaller fragments had been previously known, and camel-loads sent by the Arabs to Damascus, where it was used for the manufacture of cement for cisterns. More perfect specimens were found at Dhiban by Bedouins in purchase of saltpetre for their gunpowder. The pottery is often so strongly impregnated with this salt, that though washed again and again, a constant efflorescence reappears in a few hours. It was then that Mr. Shapira commenced collecting through an Arab emissary; but after some four months he determined, with the other two gentlemen above mentioned, to endeavour personally to find specimens *in situ*.

The party proceeded first on a visit to Sheikh 'Ali Diab, the famous Chief of the 'Adwan, who had before been Mr. Shapira's guest in Jerusalem, and through whom many specimens had been obtained. Great difficulties were experienced in the supply of water; horses often had to be sent back four hours' distance to drink; and later the excited bearing of the Hamydeh brought the expedition to a rapid termination.

Leaving Diab's camp, the party proceeded to El 'Aab, the Elealeh of Scripture (Numb. xxxii. 7, 37; Isaiah xv. 4), and here they found a rock-cut repository some two feet deep, and long enough for two jars,

such as were sent from this spot by Sheikh 'Ali. Thence they proceeded to Hesban, which is distant about half an hour's ride, and famous for its beautiful water; but here they found nothing except some old coins, one Roman, another ancient Arabic, and one possibly Hebrew, together with broken pottery and four stones inscribed, but utterly illegible. The next point was the Camp of Fendi el Faiz, Sheikh of the Beni Sakhkhr, to whom the Hameydeh are subject, situate near Bir el Sein (?), and from thence they proceeded to Madeba.

It was here that Pastor Weser and Mr. Dinsberg themselves found the curious pieces, of which I send separate sketches. Under a heap of more modern broken pottery two pieces were first found, on one of which a Phœnician "mem," on the other two lines of crowded Phœnician characters, were legible. Digging to some twenty-three feet, the other specimens were discovered at various depths by the two above-named explorers, Mr. Shapira himself entertaining the natives at the tent with coffee. Here, also, and at other places, men, women, and children, both boys and girls, brought numerous broken pieces; for prudential reasons they were not bought, but often thrown away in presence of the natives to prevent their getting an exaggerated notion of the value of the pottery. The ignorance of the inhabitants of the country was so great, that they mistook rocks with natural marks for inscribed stones. Pottery also was unknown, as water is kept in goat-skins only.

Diban was next visited, and the two travellers were shown by the sheikh of a small tribe the niche in which the large figure of an Astarte (?) had previously been found, and which appeared just fitted to hold it. They were of opinion that the statue was interred here, though possibly *beneath* a temple. Lying on the hill above the cave was a stone some two feet long, with a few Phœnician characters. Broken stones were also found here, and pieces, said by the natives to belong to the famous Moabite stone, were seen, as well as pieces of later date; one with a Cufic inscription, another two with engraved crosses separated by a geometrical pattern. A stone had also been found at Madeba, a hard granite block, having in its centre a representation of the sun, and on either side a moon, and beyond a star surrounded with five moons. This was possibly *in situ* in a wall of large stones.

The last ruin was Umm el Rasas, visited simply to investigate the so-called serpent stone, of which Mr. Shapira had a copy—a block of about thirty inches side, with a bilingual inscription and the figures apparently of a scorpion and a serpent. Unfortunately their intention was known to the Hameydeh, and on arriving at the place pointed out no stone was found; but surrounding stones had been disturbed, and there was evidence of a large body having been moved. Crossing accidentally the very line along which the stone had been taken, similar traces were visible at intervals of fifty to a hundred yards, and, finally, a cistern with indications, as though a heavy body had been thrown into it. Descending, it was found filled with stones, but time and the temper of the people would not allow of a minute investigation of the spot.

From thirty to forty pieces, some of which I have sketched, were brought by Sheikh Diab, as well as a fine pot, with an extremely bold inscription in plain Phœnician characters, found at Khirbet Jemil (?), near Umm el Rasas. Its translation will be interesting, as there seems a possibility of its being a votive sentence regarding the ashes of the dead. It was closed at the top, and has seven apertures, through which the ashes may have been inserted.

The expedition now returned to Zamát and Hesban, after a visit of eleven days to the country. It is to be regretted that it became necessary to undertake it, as the chance of obtaining any further specimens on reasonable terms is materially damaged. The country of the Hameydeh is now impassable, and it is with great difficulty that a further collection is being amassed. A figure even larger than the Astarte, with characters on its back and chest, in an extremely fragile condition, will, it is hoped, be got safely to Jerusalem; and if the suggestion of the use of water-glass, which we recommended to Mr. Shapira, be adopted, some of the most perishable pieces may still be preserved.

The character of the pieces found by Pastor Weser will be found to agree with former specimens drawn and sent to England, especially the Astarte with the horned head-dress, the points placed downwards, like the present coiffure of the Arab women, which is often ornamented with coins. In the later specimens one figure with horns, and curious cup-shaped protuberances instead of breasts, is no doubt a representation of the same deity mentioned previously in my first report (Letter II.) on this subject.

One great characteristic of this pottery is its fragile condition. When taken from the soil (like other antiquities found in Italy) it is fresh-looking and apparently new, but as soon as exposed to the air it will in some instances fall to pieces at once, in others it gradually becomes crusted with saltpetre as before described. Even the pieces which appear most perfectly preserved are liable to break suddenly without warning. The pottery, which at first seemed of two kinds, now proves to differ in various specimens from a soft disintegrated grey earthenware to a bright red, apparently of later date, several intermediate kinds being observable.

With regard to the character of the objects themselves, setting aside the question of inscriptions, which should not be discussed except by competent authorities, the symbolism presents many interesting features. Part is undoubtedly connected with the ancient idolatry, so often referred to in Scripture, in "the abominations" of the Moabites, in the mistranslated "grove" of the temple of Samaria, and in many different superstitious rites, including the worship of Baal Peor; whose name is preserved at the modern Tel Fa'ur, where many specimens were found belonging to this form of symbolism. The mystic number seven is continually represented on the figures, and in some cases fourteen or twenty-one round holes are arranged on one

piece. A head which I have just sent has six teeth and one opening into the nose; another has five dots, and one on each breast; a third has four vertically and three horizontally arranged; a fourth has fourteen marks representing perhaps a beard, five teeth, and two nostrils.

The triangle is also, but more rarely, found in one piece (a disc); it occurs as a reverse to the seven circular dots. The representation of the sun is also not unfrequent, one figure having sun and moon attached to its sides instead of hands (perhaps a rude symbolism of the work of Providence employing the influence of the heavenly bodies).

One most curious point is the apparent element of caricature in the heads—grinning mouths (in one case the tongue protruded), enormous noses, horrid heads, and deep-set eyes. Some resemble apes, others are seemingly bird-headed. Horns and huge ears, distinct from the crescent of the Astarte, with its horns depressed, are not uncommon. One head I now send resembles a mediæval gargoyle, other specimens are seemingly Egyptian in character.

The whole collection now numbers more than seven hundred pieces, of which we have drawn some two hundred of the most perfect and characteristic, including the calf, the so-called Astarte, the bull's head, and other fine specimens. The camel, the lizard, the serpent, the tortoise, and, it is thought by some, the leopard (Mr. Drake suggests the otter), are all roughly represented, and birds and bird-like figures of various kinds. I may remark that on inspection of the sketches two ways of representing the eye will be observed, with other characteristic points of more or less critical interest.

Some notes from the Talmud, communicated to me by an educated rabbi, may be of interest in connection with this pottery. A broken piece of an idol, a stump, or head, was not to be regarded, says the Mishna, as an idol in itself; thus it might be put to a useful purpose, if of metal melted down, if of pottery broken up and used again. This was not the case with a hand or a foot, which were in themselves objects of worship, and if found were not to be touched, but to be regarded as unclean. A curious relic of this hand-worship\* is, I am informed, still preserved in Jerusalem, a rough representation of a hand being always marked on the wall of every house whilst in building by

\* The handprint on the wall is commonly used by the Jews to avert the evil eye; care is taken to put it in a conspicuous place outside the house before a marriage, birth, or other festival. At Jerusalem a sign resembling a double arrow-head is frequently used instead, which has been explained to me by a Jew as symbolising the five names of God, as do the five fingers, thus averting evil from the place where it is imprinted. In the ruins of El Barid, near Petra, Professor Palmer and I found a cistern whose cornice was decorated with hand-prints alternately black and red. At the present day both Moslems, Christians, and Jews hang hands, rudely cut out of a thin plate, of silver or gold, round the necks of their children to preserve them from the evil eye. The use of the first and last finger of the hand, for the same purpose in Italy, is well known,

the native masons : several unbroken specimens of hands are found in Mr. Shapira's collection. Again, with regard to the calf, which we naturally connect in our minds with Aaron's golden calf, great doubt has been felt whether the latter was an imitation of the Egyptian Apis, or a representation of the Cherubim. Now in the Mishna the Sar Apis is mentioned as an idol ; the Babylon Talmud in criticising this goes into an elaborate explanation, connecting the word with the Patriarch Joseph by some extraordinary perversion, in apparent ignorance of the simpler explanation, "the Ox Apis," which is furnished by modern Hebrew scholars.

The examination of Mr. Shapira's collection having been perfected up to date, my attention was next turned to the existing archaeological remains above the surface in Jerusalem. In a former letter (No. 6) I described the investigation of Siloam, and of the southern side of the city, with remarks on a rock-cut corner in tank No. 24, and a description of the curious Kalaat Jalud already explored by Captain Wilson. Accompanied by Dr. Chaplin I now endeavoured to examine thoroughly the north of the city, and to carry out some investigations of importance in the Haram. The results were interesting, and in one instance new ; and the whole city being in these two visits pretty thoroughly examined above ground, it becomes now possible to give a definite plan of action as regards the continuation of Captain Warren's explorations in Jerusalem.

First in interest comes the Haram, especially the Platform and the Mosque itself. Much still remains to be done here, and new details may continually be observed. Thus in the diagram I send you showing the level of the rock at various places on or near the platform, some points occur not shown on Captain Warren's plan.

Within the mosque, my attention was first turned to the sacred rock itself, and I have executed a compass sketch of it, on a large scale, which contains several details which may or may not be of importance, but which are not in the plans either of Captain Wilson or of Count de Vogüé, such as the *two* drains leading to the shaft on the north side. Had it been morning instead of afternoon we might have ventured to get on to the rock, but as many fanatical pilgrims were being shown round the sacred places by the sheikh's son, I judged it safer to take measurements by offsets from the outside.

Next to the rock, the pillars of the mosque require special notice, their character being almost unknown in England. I will send sketches of all ; twelve in the inner circle, supporting the drum, and twelve in the outer, surmounted by architrave blocks, between which runs the well-known wooden architrave or beam. These should be of interest, as the only correct representation of any of them is one by Count de Vogüé ; but this is not, as has generally been supposed, the type of but this verges on the use of the horn or horn-shaped article, such as a horse-shoe or a charm. Horns are still in common use amongst Mohammedans, who hang them up in fruit-trees to ensure a good crop.—C. F. T. D.

the whole number, which, it will be observed, differ greatly in outline, size, proportion, and details. Of the inner circle only two are alike; the rest seem to have been brought from various older buildings, and possibly may not be of the same date, though this is a question for architects to decide, if, as I hope, my sketches are sufficiently characteristic to enable them to do so.

Of the outer row, one peculiarity is that none of the pillars have bases, but are surrounded by a sort of pedestal made of blocks of marble built up against the shafts, which are not all of equal height, so that to make up the level above the architrave blocks of two of the pillars are only half the height of those of the remainder. Eight of these pillars resemble that drawn by M. de Vogüé, the remainder differ, as shown in the sketches. The bosses in the centre of the capital are of various devices, some pillars have four different kinds on four sides. All of these, except such as are entirely defaced, I have drawn, including that on which a cross is considered to be represented, which is by no means so clearly visible as one would be led to expect by the former representation.

With regard to these capitals, which are generally described as Romanesque in character, it may further be remarked that similar ones are built up into the piers on the east entrance to the platform, and that two, seemingly of the same date, appear in the arcade of the steps opposite the "Gate of the Chain" in company with a Byzantine basket-work capital of perhaps the tenth century work.

It would be most desirable to obtain a perfect collection of capitals from the Kubbet es Sakrah, the platform, the Mosque el Aksa, and the present church of the Holy Sepulchre, as a good deal of valuable architectural criticism might be based on such a comparison. Our information at present is by no means so perfect as it may easily become on this subject.

Of visits to the royal caverns, the tombs of the kings, the grotto of Jeremiah, and other well known localities, there is no reason to speak here, as only places not sufficiently noticed or newly discovered will be of any great interest; these include the wall and ruins east of the Holy Sepulchre, the new explorations in the Muristan, the remains north of the city, and a newly discovered tomb.

The ruins east of the Holy Sepulchre were first examined by Count de Vogüé, who describes them in his book on the "Temple of Jerusalem." They are two in number, and differ entirely in character.

The first is a wall which is undoubtedly composed of masonry of a period identical with that of the Jews' wailing place. The height of some of these magnificent stones, in the part of the wall running north and south, is forty-two inches, and their other two measurements in some cases the same, the ruin seems to have formed originally the southwest corner of some building, and afterwards to have been used in the construction of the church which stood at one time on this spot; the wall was then faced on the west side with smaller stones, without any

marginal draft. Captain Wilson here sunk three shafts, and found beneath the pavement, east of the wall, large ashlar work, not drafted, the lower course at a depth of 7' 4" being underpinned with smaller stones. This is not by any means a proof that the stones were not *in situ*, as there seems reason to conclude from various ancient relics in Jerusalem, that this may have been an old method of forming a foundation. The second ruin, that of an arch of Christian period, supported on two capitals, one called Corinthian, the other Byzantine, is also noticed by both M. de Vogüé and Captain Wilson. There can be no doubt that this capital, as well as a second, apparently *in situ*, in a wall adjoining the arch which has been roughly built on to it, belong to an older building. It has, however, been supposed that the two Corinthian capitals are a pair, and I have, therefore, thought it worth while to send sketches and dimensions, showing that though possibly belonging to the same building they differ in size and in detail.

I should also be glad to have an architect's opinion on their date, as the introduction of the winged birds with heads (apparently) worked into the central device, seems hardly an ordinary element of Roman detail. Symbolical figures, the centaur, the gryphon, representing, according to Dante, the church of Christ, and many other allegorical devices, were commonly used by Christian architects, as in the capitals discovered by the Rev. T. Neil, in El Aksa, and in the slab over the south doorway of the Holy Sepulchre.

If I might be permitted to hazard a conjecture on such a subject, I would suggest that possibly the capitals might belong to the palace of Helena, Queen of Adiabene, which, we are told, stood in the centre of the lower city in the time of Josephus.

Close to this spot, in the Muristan, the excavations are being rapidly pushed, and will probably be complete in a year; several very large cisterns, lined with hard cement, have just been found. They are beneath the arcades shown on the plan just published in the last Quarterly, and near the Street of David; the rock here has been sought in vain at a depth of forty feet. I hope, nevertheless, soon to be able to send home a series of rock soundings from the Holy Sepulchre eastward, showing the slope of the valley. The method of raising water seems to have been by means of a large wheel, a space about a foot wide being left between two ribs of the vaulting to allow of its revolving.

There is no point as to which we have so many important indications, both in the archæological literature of Jerusalem and in existing remains, as the extent and direction of the northern wall built by Herod Agrippa, commonly called the third wall by Josephus. It is fortunate that this is the case, because there is also no part of the city in which there seems less probability of our recovering many more remains. The ground has for eighteen centuries been ploughed and reploughed, and in other parts the rock itself appears on the surface, more especially on the north-west; thus of foundations or even displaced

blocks of the ancient masonry there is very little chance of our now finding any remains.

Still, it is to be observed that the most has not been made of the information we possess.

The Vandalism of the fellahin is rapidly destroying the few remains which yet exist. Close to the north road the great stones in the side of a cistern where Captain Wilson's second excavation was carried out, are still intact, but those marked "old foundations" to the west of these on the ordnance survey, have entirely disappeared, having been cut up for building stone by the natives. The production of the line from these eastward, cuts those first mentioned, and thus gives approximately the line of a quarter of the whole extent of the wall. The foundations of two towers, and parts of a wall, first noticed by Robinson, are now covered up under the Russian buildings, but his bearings and measurements enable us yet to lay down the course of the third wall on the west. Thus it is only on the east where the description of Josephus (*Wars* 5. 4) and the conformation of the ground alike point out clearly its course, that any room exists for doubt with regard to the line taken by this the latest of the gigantic fortifications of ancient Jerusalem.

One confirmation of the supposed line exists, which has not hitherto been made of sufficient importance, namely, the true position of Scopus, which, we learn from two passages in Josephus, was seven furlongs from the city. In comparing the three principal passages where the word occurs (*Ant.* 11, 8, *Wars* 2, 19, *Wars* 5, 2), no reasonable doubt can be left in the mind as to the true position of the site. The place called Sapha, or prospect, the elevation called Scopus, or watchtower, and the plain from which the city, and especially the temple, were first seen on advancing from the north, all alike point to one site. From the ridge Alexander could see from far off the white robed priests, who, with a great multitude in the plain behind, came out along the north road to meet him as he advanced from that side. Here Cestius camped, advancing by the same route from Galilee, and Scopus was then (the wall of Agrippa being already built) seven furlongs from the city. Finally, it was here that the 10th and 15th legions, numbering at least 30,000 fighting men, made their camps, which, when camp followers, horses, mules, camels, and baggage are taken into consideration, must have covered at least 30 to 40 acres. Behind them, three furlongs further north, the fifth legion made its camp also on some suitable bit of ground situate near the course of the north road—an indication which, like the rest, agrees only with one site north of the city.

Now with these data in his head the traveller who, like myself, spurs up the last ridge which separates him from Jerusalem, sees sloping beneath him, east of the great north road, a plateau, which is separated by a broad valley from the town. From this ridge the dark grey wall first becomes visible, and of the Haram and of the great dome within it "a plain view might be taken." Hence this place may, to use the

words of Josephus once more, be "very properly called scopus (or prospect), and is no more than seven furlongs from the city," that is, from the remains in the cistern already noticed, as measured on the ground by Dr. Chaplin. Still further, here, and here alone, on the north, we have the natural site for a camp, protected in front by the valley, and only approachable from the east, where its front was again covered, if, as in the case of Titus, the attacking force held the northern part of the Mount of Olives. Thus it may be said that Scopus and the third wall mutually fix one another's positions; and the indications, coupled with the existence of remains on the spot, form the most satisfactory identification perhaps possible of any site near the city.

In close connection with this question comes that of the whereabouts of Helena's monument. It has been identified with the so-called tombs of the kings by Robinson, but although the position is a possible one, and the passage in Jerome (*ad Eustach. epitaph. Paulæ*) showing it to be east of the great north road, with the mention of its rolling door in Pausanias (*Greciæ Descript.* lib. viii. c. 16)—a peculiarity not known in any tomb other than the tombs of the kings at Jerusalem—alike confirm the opinion; still the author dismisses the notice given by Josephus of its distance from the city wall rather too hastily, by the remark that, though it is four furlongs from the Damascus gate, still the old wall extended about a furlong further north, thus giving the three furlongs of his authority (*Ant.* xx. 4). The truth is that the distance from the monument to the old foundations in the cistern is about two furlongs, but Josephus' words are, that it was "*no further than three furlongs*," a loose expression, which is not of itself sufficient to upset the identification.\* When to these indications we add that given in *Wars* 5. 2, where we learn that the Jews, sallying from the gate between the women's towers, by which the north road entered the city, pursued Titus, whom they had nearly intercepted on his leaving this road to reconnoitre westwards towards Psephinus, and continued to harass him with darts as far as Helena's monument, it becomes clear that the great sepulchre close to the north road, but east of it, with a rolling stone to close its entrance, commonly called the Tombs of the Kings, is in reality the mausoleum of the royal family of Adiabene. Its stelæ, or pyramids, have indeed disappeared, though objects of enthusiastic admiration to ancient writers, but the debased though rich ornamentation of its façade, generally allowed to be first century work, agrees well with the history of its erection by the sons of Queen Helena.

Such are the main points observable in the question of the main wall. Psephinus must have long ago disappeared, as a glance will show beneath the road bounding the Russian property; the "tower of the corner," the "monument of the fuller," alike give no indications above ground; and the sepulchral caverns of the kings, unless, as I think not quite impossible, they were really one and the same with the tomb of the royal family of Adiabene (a solution which would at once answer

the ever-recurring question, What kings were they?), must, it seems, remain a puzzle for ever.

The investigation of this quarter of the city brought to light a new discovery, that of a tomb which is at least as old as the Roman period, and probably older, situate close to the ancient remains in the cistern, excavation No. 2 of Captain Wilson. The owner of the olive-yard on this spot has commenced the excavation, and possibly found relics other than those which were left as worthless at the time of our inspection, although he has announced that he is willing to allow of our digging to uncover the remainder. Referring to the plan, it will be seen that a rock-cut scarp faces westward, along which a trench has been dug, discovering two finished and one unfinished tomb cut in the soft rock. These contain loculi parallel to the length of the excavation, and two north and south; at the eastern end above, a groove is cut in each side of the tomb, into which the slabs of stone in the sketch were fitted, thus making a second tier for a loculus, sarcophagus, or funeral vase. There appear to be other chambers on the north and south sides not yet examined. Part of the structure on the north was originally, or by later conversion, a cistern, and plaster is also found on the south, but in neither case is it very hard. The section shows where a tessellated pavement, with traces of a pattern, exists under the rubbish above the tomb. Into the second of the tombs at present opened a shaft leads from the ground above. Remains of the present pavement were visible further east, as shown on the plan.

The loculi were full of bones and of powdered bone-dust. These appear, according to Dr. Chaplin's opinion, to be very ancient, having lost all traces of animal matter; and to have belonged to a race of small men. Some fragments of thin, ancient glass, a green glass bead, of form unknown at the present day, chips of pottery, not of modern manufacture, and a small coin, almost entirely effaced, but having a device, seemingly of two figures, or possibly ears of wheat, were obtained in the tomb and in the heap of bones excavated from it.

That this was originally a place of sepulture is clear; but what the tessellated pavement above, and remains of what seems to have been a wall, can be, it is difficult to decide. Curiously enough, we have no reason to expect the existence of any important edifice in this quarter of the city; it is without the ancient third wall, and yet there seems a probability of its being a place of some interest and extent.

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## X.

### ROCK-CUT TOMBS.

NAZARETH, Nov. 24th.

*Survey.*—The Survey has during the last five weeks been carried on in the neighbourhood of Nazareth, and on the north side of the great plain; this part we have been anxious to finish before the arrival of the rainy season, which will effectually prevent out-of-door work during part of December, January, and February.

The style of country is much more favourable to rapid and correct survey, and the length of the lines in the triangulation is on the average double that obtained in the hills. The total extent of country finished is now over 1,100 square miles, the first rains and various other causes having delayed the work during the course of last month. The extreme clearness of the air has been very favourable to the observation of long lines, and those taken from the point at Nebi Dâhy were particularly successful, including one to Mount Ebal, a distance of twenty-five miles.

The most important feature of the work is the exact determination of the watershed of the plain, which has never before been quite perfectly laid down, and which forms a very tortuous line along the high ground from Zerain to Nebi Dâhy, and to the Nazareth hills.

A day has been devoted to the tracing of the great aqueduct north of Nazareth, and a plan and section of the reservoirs connected with it have been made to the scale of 1 chain (66 ft.) to the inch.

These details are, I think, the only ones likely to be of interest to subscribers generally, the purely technical points being reserved as not necessary in a report of this kind.

*Archeology.*—The country just entered is far richer in objects of archeological interest than that south of the plain, and amongst these the rock-cut tombs form a principal group.

The interest of such remains is very great, for two reasons: first, because we can be tolerably certain that they belong to ancient times; secondly, because the existence of every such cemetery points to the probable existence of a town or village of the same date somewhere in the immediate vicinity. Thus the antiquity of a site may be verified by the discovery of tombs in the neighbourhood. That no such excavations are made at present is well known, and it is a curious feature of the country that whilst at some former time the inhabitants must have been almost a nation of troglodytes, whole hillsides being burrowed with caves often still inhabited, cisterns, granaries, and tombs, yet none of the present natives have any notion of mining or hewing in the rock.

Three principal classes of tombs are observed in the plain and in the hill country about Nazareth, each class including several varieties. The first consists of roughly excavated caves, the second of tombs sunk in the surface of the rock and covered with a stone, the third of chambers entered at one end with loculi in the sides.

The first class is exemplified at Jeba, at Khirbet Khazneh (in the plain), at Iksal (near Nazareth), and at El Jireh, on the hill above Iksal. It seems to have been used where the limestone is very soft, and the more carefully worked sepulchres of the other classes are generally cut in much harder rock. The Jeba tomb has a square ante-chamber carefully plastered, with a structural arch over the door leading to the cave within. This is far rougher, cut in a sort of cheese-like marl, with a loculus scooped in each side. A second cave to the west of Jeba is even rougher, and may probably be also a tomb, as it is regarded

as a sacred place by the Mohammedans. Khirbet Khazneh is a ruin on the east of the plain not far from Lejjun, where traces of a large building, a broken sarcophagus, a capital, a shaft, and a small Roman altar, were found on the surface, whilst beneath, a cave with four loculi roughly semicircular is excavated in soft limestone. There appear to be at least two more connected with it, but their passages were filled with rubbish, as were also the front entrances.

The cave at Iksal is the most interesting of this class, and differs from any as yet found. A large chamber, the roof of which had fallen in, was first found, with four loculi parallel to its sides, and raised above the floor about 2ft. 6in. Two niches for lamps or tablets were cut in the sides, and on the south side was a small opening through which I succeeded in scrambling into a cave with rough-cut loculi on two sides. The rock here also was soft, and much chalky *débris* had fallen on the floor. There were many bones strewed over the floor, which from their brittleness and general appearance may probably be very old; and in one *loculus* I was fortunate enough to discover a skull almost perfect to the orbits (the face having disappeared), and near it a jaw-bone, probably belonging to the same skeleton. A very narrow passage led out of this cave, but was too small to allow of my creeping far into it. It appeared to come to an end, and may only have been a *loculus*, but of this I cannot be certain.

Amongst the tombs at El Jireh are two which may rank in the first class, being also caves cut in soft stone and entered by rough and narrow passages.

The second class is extensively represented at Iksal, where close to the cave is a cemetery of perhaps over two hundred tombs. Near Seffuriyeh, and at El Jireh, other examples have also been measured.

The Iksal tombs include several varieties, single loculi sunk in the stone, rock-cut sarcophagi, tombs with a single side *loculus*, and tombs with two. Most of them had water-channels to conduct the rain, and some raised edges. All appear to have been closed by heavy roughly squared blocks of stone from 7ft. to 8ft. in length. There was no appearance of any special direction chosen for the body to lie in, and here, as in the other groups, the tombs faced in all directions. Seemingly more attention had been paid to the direction the water would take in running over the surface of the rock in which they were sunk, than to any other consideration. For this reason they are never used at present, as the native Mohammedans bury east and west, with the face turned south towards Mecca.

In one of these tombs two skulls were found, one very large and perfect, the other small and possibly female. The arrangement of double loculi is supposed, I am told, to be Christian, and to be intended for the reception of the bodies of a man and his wife. I do not, however, think these skeletons can have been those of the original occupants, for they appear to be more modern, and rags of clothing were mingled with the bones, the greater number in each skeleton still remaining in

something like relative position. The natives call these the "Frank tombs;" possibly they may be of crusading times.

Seffuriyeh, the Sephoris of Josephus, gives signs of having been a flourishing town in Roman times, and would merit a more complete exploration than we can manage to give to it this year. A great number of sarcophagi lie round the village, or are built into the old crusading castle, and in all that I have observed the end where the head was laid is rounded.

Near Seffuriyeh are three small sunken tombs or loculi, also with the head rounded, and closed not with a square block, but with one cut into the ordinary triangular cross section of a sarcophagus lid. Thus these tombs, though belonging to the second great class, are probably earlier than those at the Iksal cemetery.

Two tombs of the second class, sunk in the surface of the rock and closed above by large stones, are found amongst those at El Jireh. The first has four loculi on the four sides of the quadrangular sunken chamber, but they are far rougher than those at Iksal, which have semi-circular arches, and a partition separating the body from the chamber. The second has three loculi, and at one of its ends a small passage into a quadrangular chamber cut in soft rock without loculi, a curious combination of the arrangements of a sunken tomb with one entered on the level of the floor.

The last class of tombs is exemplified at El Jireh, at Nazareth, and near Kefr Minda. It appears, however, to be far less common than the other two, and these are the first examples we have found. The chamber is entered at one end, and the loculi placed with their length in each case perpendicular to the side of the chamber. The El Jireh tomb is partly fallen in, but seems to have been roughly circular in plan, with seven of these loculi radiating, and an entrance of some size. The tomb at Nazareth is cut in rather soft rock, its roof, unlike most of the tombs as yet found, is a kind of tunnel vault, and the loculi, of which there are twelve (five on each side, and two at the end opposite the door), have a similar tunnelled roof. A second close by, said to contain ten loculi, with two more outside the door cut in the sides of the passage before the chamber, was filled up and unapproachable.

Another tomb not as yet measured, but resembling those at Nazareth, was found on the summit of the high hill above the village of Kefr Minda, the most northern of our trigonometric stations, and situate within that portion of the country which was reconnoitred by Captain Anderson during the preliminary expedition under Captain Wilson. This hill is visible from points near Tiberias, from Safed, Acca, Haiffa, Carmel, and Nazareth, and would be a most valuable point but for the thick ring of oak-trees springing from the ruins of some ancient building beneath which the tomb was cut in the rock.

Large numbers of cisterns occur amongst the tombs found in the cemeteries at Iksal, and in the hill close to Tell el Jireh.

*Geology.*—The observations systematically continued of the strata

north of the plain fully confirm the deductions which I made in Report No. VII. No less than twenty-nine distinct outbursts of Trappean rock, on the east, west, and north of the plain, are now marked on my rough map. Some of these have broken through the upper strata without disturbing their dip, possibly emerging through some natural fissure; others have, as at Sheikh Iskander, uptilted the lowest beds and flowed from beneath; and wherever the formation of the crystalline dolomitic limestone appears on the surface, there seems reason to suspect the existence of basalt immediately below. The reason for the dip of the Nazareth range, which is upwards towards the south-south-east, is given by a basaltic outbreak near the village of Tinjâr, and another in the plain itself, showing the origin of this great break in the mountain system to be principally volcanic.

Of the Trappean rock there are now three varieties noticed: the black basalt of greater or less hardness, and containing generally a large amount of iron; the soft mud, apparently of basaltic *débris*, and often containing pieces of limestone, such as that noticed at Sheikh Iskander; and finally, a grey stone, containing large crystals (of vitreous lustre, presumably of augite), and resembling syenite. This is probably the coarser kind of basalt known as dolerite, and was first observed on Little Hermon (Nebi Dâhy).

The succession of four systems of strata first observed by Captain Wilson at Jifna, I have found to hold good throughout that part now mapped, but it is often very difficult to distinguish between the hard chalk with flint bands and the soft white chalk beneath, as first seen at Nablous. The upper beds are very thickly stratified, and seem to become softer where farther from the surface or less exposed. Sometimes they seem to overlies immediately the hard dolomitic stone, but in other places the interposition of the soft chalk is well marked, though apparently corresponding in dip and strike. Hence it seems probable, either that the two formations are of the same date, or that the soft chalk "thins out," to use a technical term, in some parts of the country.

The valley of the Kishon and the great upheaval (to use the old nomenclature) of Carmel, promise to be of some geological interest. I hope here to be able to make a good geological section from the Mediterranean to the Jordan, which may perhaps be useful in determining the question of the formation of the "ghor" valley. Above the dolomitic limestone on Carmel, a formation resembling the Santa Croce marble occurs, in which the first fossils (excepting nummulites at Nablous) we have yet found appeared. They were shells of *Lamelli-branchiata*, probably, as far as I can judge, of the genus *Gryphæa*. Shells were here found, I believe, by Dr. Tristram, but of what genus I do not yet know. Interstratified with these beds, a kind of rag or shelly limestone of loose consistency and brown colour was found by the German colonists at the foot of the mountain, and has been found useful and ornamental in the construction of their neat and comfortable houses.

*Natural History.*—The time of year is not now very favourable for entomology, the butterflies are disappearing, and the locusts and mantises seem half numbed by rain and reduction of the temperature. Large numbers of blackbeetles were, however, together with all species of ants, very active after the first rains, and colonies of winged ants were, till quite lately, setting out on their travels.

The collection of *Lepidoptera* now includes some hundred specimens of six out of the seven great families of butterflies, nearly twenty-four species in all. The *Arginidae* or *Fritillaries* are, however, conspicuous by their absence. The English Red Admiral has only just appeared, whether from the butterfly emerging later in the season from its chrysalis, or because it does not exist farther south, it is impossible as yet to say. Several other species of this family are common, but this particular one seems to be rare.

Of further notes we have made few. A large adder some three feet long was found at the entrance of a tomb which we were about to enter in the dark.

Amongst birds the pied wagtail, the yellow wagtail, and the robin, closely resembling our English species, appeared after the first rains.

The atmospheric effects of this time of year add a wonderful colour and shadow to the scenery. The great clearness of the air seems to reduce distance by nearly one-half, and the sharp outlines and deep blue shadows of the hills; the orange sunsets, with really purple colouring in the distant ranges; the fine banks of clouds of every colour and form; the passing storms with bright sunlight beyond; the Safed mountains with summits veiled in thick piles of cumulus; the Sea of Galilee, reflecting the surrounding hills; the Mediterranean, bright blue, with the gloomy ridge of Carmel to the south of the bay; finally, the great brown plain with white smoke wreaths from the burning weeds,—all these scenes, and many more, furnish subjects in which any artist would rejoice.

Not less charming are the various costumes, which seem peculiar to Nazareth itself. The short abba and gorgeous "kafeyeh" of the men, the white "Izar," the silk dresses, the broad scarves, and many-coloured trousers (red, green, blue, and yellow) of the women, give a crowd a peculiarly picturesque appearance, and differ materially from the sordid dresses of the poorer southern villages.

Several meteorological phenomena of interest have been noted, including broad bands of blue at sunset extending from the zenith to the horizon east and west, a meteor seen by Dr. Varten illuminating the tops of the hills and travelling slowly, a very bright halo round the moon, and several very fine rainbows.

In conclusion, our thanks are due to Mr. Zeller for his kind interest in our work, and his care to ensure our seeing and exploring all that existed in the neighbourhood.

## MR. TYRWHITT DRAKE'S REPORTS.

## X.

CAMP, UMM EL FAHM, *Oct., 1872.*

On the 25th ult. we moved camp from Jenín to this place. The heat in the plain of Esdraelon had been very great. On the 27th the thermometer stood at 107 degs. in the tent, and 103·5 degs. in the Observatory. Notwithstanding this, the result of the month's work since leaving Jeb'a is most satisfactory. A base line of four and a half miles in length was laid down, measured and checked; several cairns were, as usual, put up and observed from, and a total of 145 square miles were sketched in. Though part of this lay on the plain, the greatly increased rate of progress will be seen by a comparison with the amount of country sketched in per month when we first began: this seldom averaged more than sixty square miles. The non-commissioned officers were then, however, unused to the hard riding, and new to the country and its ways. Now, notwithstanding the great heat, the rate of work is more than twice as rapid as it was seven months ago, and I feel sure, at the same time, that its accuracy is in no wise interfered with. I am glad to be able to report also that no member of the party, either European or native, has hitherto been laid up with sickness. With the exception of a few trifling ailments of two or three days' duration, our state of health has been all that could be desired.

The village beside which we are now camped is a large one, and divided into four quarters, El Jebarín, El Mahamín, El Majáhineh, and El Akbaríyeh, each of which has its own sheikh. There are some fifteen houses of Christians, which represent a total of about eighty souls. These are mostly birds of passage, who "squat" wherever, and as long as, they find it convenient, and then flit "to fresh fields and pastures new." The natives are an unruly lot, who never paid taxes till within the last few years, and who have not yet learnt the lesson of subjection. Some days ago a man tried to seize my horse's bridle as I was passing near a threshing-floor, and insolently told me to be off, at the same time making as though he would strike me; but, seeing then that he had gone rather too far, took to his heels and fled. After a suspense of three or four days, I consented, at the intercession of two of the sheikhs, the kadi, and other village worthies, not to have the man imprisoned at Jenín, so he was brought and solemnly beaten before my tent door by the sheikh of his quarter. As civility in this country is induced by fear and a sense of inferiority, we shall probably be treated with decent respect for some little time to come. One cause of the villagers' unruliness is their wealth: they possess large herds of cattle and flocks of goats, a very considerable number of horses, and more

than the normal quantity of camels and donkeys. Their land comprises a wide tract of thicket (called *Umm el Khatlaf*, "Mother of the Ravisher," from the dense growth which, as it were, seizes and holds those who try to pass through it) to the south and east, arable hills to the west, and virtually as much of the rich plain of Esdraelon (Merj ibn 'Amir) as they choose to cultivate. Besides all this, the village owns some twenty or more springs, under whose immediate influence orange and lemon trees flourish. Shaddocks grow to an enormous size; I have one now in the tent whose circumference lengthwise is 2ft. 6½in., and its girth 2ft. 3½in.; weight, about eight or nine pounds; and tomatoes, cucumbers, and other thirsty vegetables flourish. The taxes paid by the village amount to 23,000 piasters, or £185 sterling, in addition to the poll-tax on sheep, goats, and cattle, which probably comes to £20 more.

Under and immediately to the east of Umm el Fahm is the great volcanic upheaval which I mentioned in my last report as existing beneath the tomb of Sheikh Iskander. In addition to the basalt, which is mostly friable, stratified volcanic clay and mud are found in large quantities, of a yellow, red, or greenish colour, though the prevailing tint is a dusky brown. This is usually overlaid by a stratum of limestone more or less hard; that at the sides of the upheaval is distinctly metamorphic, and lower down is hard and crystalline.

On crossing Wady 'Ar'a—which, rising above Lejjun, flows in a south-westerly direction to the sea—a curious change is observable. All wild vegetation ceases, except a few thistles and plants of fennel, while the rock changes to chalky limestone at top, mixed with a few flints, and hard clay beneath, which is here used for keeping the roofs watertight. On the western side of this formation, which is closely furrowed with wadies, where it begins to sink into the Maritime Plain, lies an open woodland consisting entirely of *ballût* (*Quercus Aegilops*, locally called *Mallût*), which here grows into trees some thirty to thirty-five feet high and six to ten feet in circumference. The thickets westward consist chiefly of *sindian* (*Q. pseudo coccifera*), *afs* (*Q. infectoria*, locally *aff'is*), *sarris* (*Pistachia lentiscus*), *butm* (*P. terebinthus*), *burzeh* (a shrub with leaves very like the *sindian*, and bearing a purple berry the size of a currant); intermingled with these are a few plants of *cistus*, *arbutus*, *andrachne*, and the usual growth of *billan* (*Poterium spinosum*), sweet-leaved vines, &c., in the more open places.

The fauna is scanty: the mammals most common are wild boars, jackals, and wolves. A few leopards are said to exist, but are more frequently found on Carmel; ichneumons are very common, badgers less so. A species of wild cat—captured near Nazareth—has been described to me by Mr. Zeller as very like the booted cat (*Felis chaus*), but without the black feet. The lynx (*F. caracal*) also exists, but owing to its very shy habits is rarely seen.

The scarcity of birds in these thickets has most surprised me; the dense growth of brushwood is just the shelter which many of the

warblers most affect, but I have been able to detect very few taking advantage of it. I have noticed a few Montagues harriers, and a peregrine falcon. Black-headed jays, the Athene owl, and kestrels are as common as usual.

The season of gathering the olives has just commenced, and the women, boys, and girls are all busy thrashing the trees with long poles and gathering up the fruit, which is just beginning to turn black. The other day a boy was killed by falling from a high branch. A litter was hastily improvised with a cloak and a couple of poles, the corpse was carried off, and, after the fashion of the country, buried instantane. The yield of olives this year is exceedingly good, as is that of all the crops except the cotton and millet. The *simsim* (sesame), which is exported to Marseilles for the purpose of being converted into "superfine olive oil," has been most abundant, and the tax collectors, local governors, and even the fellahin, will benefit from this year of plenty.

The woodlands which I have mentioned are a most pleasing relief to the eye after the bare grey rocks, varied only by patches of grey-foliaged olives, and vaulted with a glaring grey sky, like molten lead, to which we have been so long accustomed. Our first shower of rain fell on the evening of the 3rd, and though it only amounted to .005 in., the air was somewhat cooled, and the 5th was one of those wonderfully clear days, so rare in northern latitudes, which lend a charm even to the most monotonous stretch of round-topped hills. From our stations near here, Jaffa, Carmel, Jebel Sunnin (in the Libanus), Mount Hermon, the range of Jebel el Durúz, Hauran (with its prominent volcanic cones), and block of Jebel Ajlún (Gilead), were all distinctly seen.

The tomb of Weli Iskander, which stands near here, has proved a most valuable trigonometrical station. This personage is, on the authority of the Kadi, one of the kings of the Children of Israel, but I cannot find any foundation for this legend in history, unless it be some memory of Alexander, son of Herod, who was strangled at Sebaste, but buried at Alexandrium (Jos. B. J. 1 xxvii. 6). Others say that it is a *makam* in honour of Alexander the Great, of whom Moslem legends, with their usual disregard for chronology, tell marvellous tales. He was a negro, the son of El Dhab'aak, king of Himyar, and a Greek princess, and is called *Iskander z'ul Karnayn*, "Alexander with the two horns," which grew like a ram's from his temples. To conceal them he invented the turban; he also invented the fashion of shaking hands. He had an interview with Abraham in Wady Seb'a (Beersheba) B.C. 300; his conquests extended over the world, and amongst other notables he slew Yajuj and Majuj (Gog and Magog), who were each 240 feet high; and to avoid the plague which would ensue from the putrefaction of such a mass of flesh, he caused an army of birds of prey to tear off their flesh and carry it to the sea. These giants were omnivorous; they ate trees, crops, men, horses, and cattle, and were able to drink the Lake of Tiberias dry in a single day. Some of their race, who were also

cannibals, rode ants as large as camels instead of horses. Alexander was a fit hero to cope with such monsters, as his nose was three spans long and, of course, the rest of his body in proportion. Og, the king of Bashan, to reach whose knee Moses, who was twenty cubits high, took an axe twenty cubits long and leapt up twenty cubits from the earth, must doubtless have been a connection of these giants.

In several places among the brushwood we have observed square towers measuring twelve to fifteen feet on each side, and built of roughly-hewn stones two to four feet long. These, together with huge built-up cairns, and the rock-hewn wine and oil presses, are doubtless of remote antiquity.

In one ruin—Khirbet Abu 'Amir—near Kefr Kúd, we found the ruins of a building. It is probably a small temple, and there are appearances as though it were *in antis*. The stones are too much scattered and decayed for satisfactory examination. Lieutenant Conder and myself have made sketches of the ornamentation, which is much overcrowded on the cornices. All around are ruins of houses and traces of a road up to them, on which are strewn the voussoirs of a circular arch with plain mouldings. The usual rock-hewn cisterns exist, but lined with a very hard pinkish cement. This colour arises from the finely coloured pottery mixed with the lime.

Near by is a pit hewn in the soft rock, in which I was told water still collects and remains, even in the summer, after abundant rains. Beside it are some fine ballút trees, and a solid platform 35ft. by 30ft. of large roughly-hewn stones. The object of this erection is not evident; whether sacrificial or merely an oil-press is impossible to say. The tomb of Sheikh Selámeh now stands upon it.

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## THE COMPARATIVE CHRONOLOGY OF PALESTINE, EGYPT, AND ASSYRIA.

BY FRANCIS ROUBILIAC CONDER, C.E.

NOT a little disquiet has been awakened in the minds of many estimable persons by the statement that the results of recent decipherments of the hieroglyphical inscriptions of Egypt, of the cuneiform records of Assyria and of Persia, and of the Phœnician tablets of Palestine, are irreconcilable with a belief in the uncorrupted accuracy, or even the original authenticity, of the historic books of the Hebrew Scriptures.

It is of no little importance to arrive at the truth in this matter. On the one hand, writers may be named who eagerly seize the occasion to impugn much to which a high degree of unquestioned veneration has long been accorded. On the other hand, the patient, unrewarded, unappreciated labours of the students of long-forgotten tongues are

discouraged and disparaged, from the fear of their questionable tendency.

The first step which intelligent criticism should take in the matter, is to draw a sharp line between the province of science and that of opinion. How much do we take from definite historic data? How much from authority? Whose is that authority? and on what is it based? The witnesses must be brought impartially into court before any jury can decide whether their testimony is contradictory or the reverse.

Accounts of the same events, emanating from opposite sources, may be compared in two distinct respects. We have to regard their historic form, and their chronological indications. In the former we must expect contradiction; opposing nations or parties invariably give contradictory accounts of the same events. Even in the late Franco-Prussian war it has often been almost impossible to believe that the French and the Prussian dispatches described one and the same action. Thus if we have an Egyptian, an Assyrian, or a Moabite account of any event described by a Hebrew historian, it is certain, *à priori*, that the colouring of the two records will be entirely reversed.

With regard to chronological indications, the case is altogether different. Within certain limits accordance must here exist, or error, in one account at least, is proved. These limits are not wide, but they must not be neglected. One chief source of variance is the differing date of the commencement of the year among different nations; or even in the same nation for different purposes, or at different periods of their history. Thus the Jews had their sacred, and their civil, year; respectively commencing with the new moon of the vernal, and of the autumnal, equinox. The Greeks commenced their years with the summer solstice. The first of Thoth, the commencement of the Egyptian year, receded by a day every four years, in consequence of the use of a solar year without intercalation. Again in reckoning by regnal years parts may be taken for units. A history of England, of which the chronology was taken from the dates of Acts of Parliament, would differ considerably from astronomical truth.

On the other hand, every great people of antiquity had certain cycles, or secular reckonings, by the revolution of which the error of various additions were checked. No attempt at defining a complete system of chronology can be of permanent value that will not endure this test. Thus the very vagueness of the Egyptian year, its periodic shifting of place, gives a value to Egyptian dates peculiar to themselves. Thus the Chinese have a cycle of sixty years, extending back to an early historic dawn. The Assyrians had a corresponding cycle—the Sossus. The Jews had one of forty-nine years, which, by its slow gaining on the decennial notation, is of the utmost value to scientific chronology.

All scholars hold that a chronological system is, at least implicitly, included in the Hebrew Scriptures. But the difficulty of clearly

defining that system has proved very great. It has been increased by the fact that the rendering given by the natural custodians of the sacred books, the doctors of the Jewish law, is palpably wrong, within historic times; the accession of Cyrus being post dated by 184 years. The Rabbinical chronology is therefore regarded with well-founded distrust.

Taking, as our APXH, in a purely chronological sense, that commencement of the sacred reckoning to which the unfortunate term *Annus Mundi* has been generally applied, we find a difference of no less than 2,549 years to exist between the dates assigned by learned men for the Christian era. The modern Jewish reckoning gives 3,761 years; Baronius, 3,951; the Greek Church, 5,606; Panvinus, 6,310. Amid all these conflicting theories, that of Usher, which is by no means one of the best supported, has been adopted in the dates printed (when any are printed) in the English Bible. No accord exists between these dates and any ancient cycle whatever.

The point at which the 488 years of the Jewish monarchy have hitherto been connected with profane history is the accession of Nebuchadnezzar. This date is taken by almost all writers from an ancient list of kings called the Regal Canon. It is ascribed to Ptolemy, but there is no proof that it has the high authority of that great astronomer. Many of the dates of the Canon are known to be accurate; some being determined by eclipses mentioned in the *Almagest*. But the length of the reign of Nabopolassar, the father of Nebuchadnezzar, is made eight years shorter than the time cited by Josephus in his reply to Apion; and that of Nebuchadnezzar himself is made two years shorter than in other accounts.

The dates given by Josephus would, no doubt, be conclusive, but for the palpable corruption of most of the passages to which reference is usually made. As we now find them, his statements are self-contradictory; so that there can be no doubt that they have been altered by copyists. We know, from a sort of preface to an early copy of Eusebius, that at one time it was thought to be the duty of a faithful transcriber to correct any error in the original. Thus, in the most conscientious manner, the present blunders may have originated.

But in passages where an obscure or little understood mark of date is inserted, there is less temptation for the copyist to make any alteration. Thus the period of 414 years from the close of the Regal Government to Antiochus Eupator (*Ant.* xx. x. 7) is one that conveys no information to any one who is not aware of the dates of the Seleucidæ. It remains, therefore, uncorrupted, and agrees with several other obscure passages in Josephus in fixing 1 Nebuchadnezzar in B.C. 595.

In the second year of Darius, it is said in the first chapter of Zechariah, the indignation against the cities of Judah had lasted for three score and ten years. In the 25th chapter of Jeremiah, v. 11, it is predicted that the nations shall serve the King of Babylon for seventy years. That chapter is dated in the fourth year of Jehoiakim, being the first

year of Nebuchadnezzar, and accords with the date, taken from Egyptian monuments, of the battle of Carchemish and the death of Neco. (The death of Josiah, according to the ordinary chronology, preceded by two years the date of Neco's accession.) Four years after that defeat, according to Josephus (*Ant.* x. vi. 1) King Jchoiakim became tributary to Nebuchadnezzar. The second year of Darius is exactly seventy years from that date.

The rectification of the dates of the Jewish reigns, which is thus demanded, both by the prophetic Hebrew books and by the Egyptian stelæ, brings them into accurate accordance with the Assyrian dates, which are verified by a solar eclipse. We thus find the fourteenth year of Hezekiah to synchronise with the third year of Sennacherib, which it ought to do according to the cuneiform records. Further, the fifteenth year of Hezekiah was, according to the cyclical reckoning, a Sabbatic year. This is in accordance with verse 30 of the 37th chapter of Isaiah. In the fourteenth year of Hezekiah the land was left untilld in consequence of the Assyrian invasion. In the following year the prescribed Sabbatic rest, as to the observance of which full details are given in the treatise *Shebith* (the fifth of the first order of the Talmud), fell due. In the sixteenth year agriculture was to resume its course. We have thus an exact concurrence of the three distinct reckonings of the Egyptian hieroglyphics, the Assyrian clay tablets, and the predictions and statements of the prophets, with the course of the great undeviating cycle of the Sabbatic year.

Another great element of accuracy in determining Hebrew dates is to be found in the twenty-six years' cycle in which the commencement of the courses of the priests returned to the same point. The Talmud informs us (*Taanith*, iv. 2) that the entire nation was divided into "*mishmaroth*," or divisions of orders, corresponding to those of the priests. When it came to the turn of each *mishmara* to go up to Jerusalem, the priests and Levites belonging to it did so, and the other Israelites of the division assembled in the synagogues to read the first chapter of the Pentateuch. Thus the whole nation had an intimate acquaintance with this revolution of the calendar. We have hence an absolute check of the date of the destruction of the temple by Nebuchadnezzar. Scaliger has preserved an ancient Hebrew verse, embodying the fact that the course of Jehoarib was in function at the time when the Chaldeans burst into the temple.

Die nonâ mensis, horâ vespertini  
Quum eram in vigiliâ meâ, vigiliâ Joarib  
Introivit hostis, et sacrificia sua  
Obtulit : ingressus est in sanctuarium  
Injustus Domini.

Jehoarib was in course from 3 to 10 Ab. B.C. 577, in which year those days fell on the Sabbath; thus affording a further, and an astronomical, synchronism.





If the Assyrian statements are read by the light of this determination of date, it will be seen that their accordance with the Hebrew Scriptures is fair and credible. There may arise a question, at times, as to the dynastic or personal name of a king; but careful investigation has removed so many apparent difficulties, that no apprehension need be entertained as to the final establishment of entire accuracy, both of decipherment and of date.

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## THE HAMATH INSCRIPTIONS.

*To the Secretary of the Palestine Exploration Fund.*

DEAR SIR,—During the three months that have elapsed since I had the pleasure of presenting you with my proposed arrangement of a portion of the Hamath Inscriptions, I have no event to report bearing upon the discovery of fresh matter in this department, unless indeed I be allowed to mention the large door-post, or lintel, from Moab. The authenticity, however, of the latter has been denied in England, so I will merely remark that it is impossible that the Hamath Inscriptions in their proper form can have been known to the supposed forger of the Moab door-post, but that nevertheless about five out of the nineteen characters on that post are identical with the Hamath ones. A small inscription from Aleppo, in your hands, has also been shown me. It reproduces some of our Hamath forms, and throws light upon the proper grouping of one or two compound forms, which I had supposed to be single. No progress at all has been made towards decipherment.

In this second batch which I now forward you, the three first lines are all on the same stone—the first on the north side, the next two on the west side of the No. 4 stone, named by Captain Burton and Mr. Drake. The fourth line I have reproduced from your last journal in smaller size, for purposes of comparison with the new matter. It will be observed that I have made the arrows now point upwards, having, in fact, turned the whole inscription round bottom upwards, without, however, altering the arrangement of the symbols among themselves. My principal reason is, that I take one of the signs to be a palm-tree, whose fruit and foliage I naturally prefer to place upwards. The sign of the human foot is also thus seen to have the sole downwards.

Between the lines where I believe the kings' names to appear; I have written the word king. In the second line where I have written this the symbols are purely Egyptian. In the third line they are only partly Egyptian.

The writing, I presume, should be read from right to left. All the inscriptions together produce about forty-five distinct characters, and, *primâ facie*, such a number would indicate a syllabic alphabet, as in the Cypriote. The stage of syllabism is, of course, less advanced than that

of the consonantal alphabet with independent vowels. If Cyprus took the one and Greece the other from Phœnicia, it is well for the world that Greece should have been unready in the Thothmes age for the less perfect gift.

The state of the stone No. 4 is such that many parts of what I now send are far from trustworthy. I have bestowed a great amount of labour on the comparison of different parts of your squeezes, but am far from satisfied in some parts of the result. I conclude with saying that I see a railway survey is said to be in hand from the coast to the Euphrates, and your journals will, I hope, be forwarded to the officers and men engaged on the work.

Yours very truly,

DUNBAR ISIDORE HEATH.

ESHER, SURREY, Nov. 20, 1872.

## JERUSALEM.

Mr. Conrad Schick, the Imperial German architect at Jerusalem, who has recently been engaged in making measurements for the construction of models of the Kubbet es Sakhra and Haram es Sherif, for the Turkish Government, has kindly forwarded to the Palestine Exploration Fund plans and sections of certain cisterns and buildings which have not been previously described.

Anything which adds to our knowledge of the "sacred area" cannot fail to be of value, and the following notice of Mr. Schick's discoveries will be of interest to many of the subscribers to the Fund.

1st. At the north-east corner of the platform three rock-hewn cisterns,\* not previously visited, have been examined, and plans made of them. Like the well-known "great sea" in the southern portion of the Haram, they are hewn out of the soft "malaki" rock, and the overlying stratum of "missae" has been left to form a roof. The only passages noticed as entering the cisterns were the ducts for leading in the surface drainage. The cisterns are from 28ft. to 45ft. deep, and the natural rock lies close below the surface.

2nd. Mr. Schick has made a minute examination of the eastern side of the platform, and found two closed openings into it, one near the north end, which appears to have been a small door leading to a chamber under the platform, the other south of the steps in front of the Dome of Chain. This, which is almost covered by rubbish, also led to a chamber, and on each side of it is a closed window, 6ft. high and 2ft. 6in. wide. From the steps to the south-east corner, there were at one time buttresses, 1ft. 11in. thick, at intervals of 9ft. 7in. Traces of five still remain, and the position of the others can be seen on a careful examination, though the broken faces of the stones which bonded them to the

\* Two of these cisterns are numbered 2 and 34 on the Plan of the Haram, in "Recovery of Jerusalem;" the other Mr. Schick has numbered 35.

wall have been chiselled over. There is also a small cistern, apparently built with masonry, immediately below the south-east corner. The northern opening alluded to by Mr. Schick is probably that of the Cell of Bostam mentioned by Mejr ed Din, who says that the door was closed in his day; and the southern opening is doubtless that of the Cell of Samed, mentioned by the same writer as adjoining the Stairs of Burak. The door of this was also closed.

3rd. At the north-west corner of the platform, Mr. Schick has succeeded in exploring a place which is thus described by Mejr ed Din:—"Below the platform on the west there is a place called Bakh-Bakh (wonderful and beautiful), which is the place of El Khydr: it is now abandoned." This is a small mosque under the platform, 42ft. 6in. long and 23ft. wide, with a *mihrab* at the southern end. The roof is a pointed arch of rough stones, and on the west side are two openings, which appear to have been windows. In front of the mosque are two pillars of red granite, carrying an arch which supports the modern Kubbet el Khydr. The floor of the little chapel, Kubbet el Arwah, is said to be natural rock.

4th. In a small building near the Bab en Nazir, an earthenware pipe was found, bringing water from the north into the building, whence it was distributed to other parts of the Haram by three additional pipes.

5th. Mr. Schick forwards a detailed plan of the ancient remains at the Damascus Gate, and draws attention to the great thickness of the masonry on the left (east) side, in which he thinks there may be a staircase.

6th. Near the site for the new Protestant Church, without the city, four loculi have been discovered sunk into the rock, and covered with flat stone slabs. A steep flight of steps led down to them, and they are covered by a vaulted chamber of masonry.

7th. Some additional excavations were made at the tombs described by Lieut. Conder,\* but no results were obtained from them.

8th. Mr. Schick forwards a sketch of the ruins of Seilun (Shiloh), and the plan of a small building known as Jamia ed Daim (Mosque of the Eternal). The interest attaching to Shiloh, as the place in which the ark rested from the latter days of Joshua to the time of Samuel, is so great that a short description of the existing ruins may be acceptable. "Go ye now unto my place which was in Shiloh, where I set my name at the first, and see what I did to it for the wickedness of my people Israel," are the words in which the prophet Jeremiah (Jer. vii. 12) refers to it as a striking example of the Divine indignation.

The ruins of Seilun cover the surface of a "Tell" or mound on a spur which lies between two valleys, that unite about a quarter of a mile above Khan Lubban, and thence run to the sea. The existing remains are those of a *fellahin* village, with a few earlier foundations, possibly of the date of the Crusades. The walls are built with old material, but none

of the fragments of columns mentioned by some travellers can now be seen. On the summit are a few heavy foundations, perhaps those of a keep, and on the southern side is a building with a heavy sloping buttress. The rock is exposed over nearly the whole surface, so that little can be expected from excavation. Northwards the "Tell" slopes down to a broad shoulder, across which a sort of level court, 77ft. wide and 412ft. long, has been cut. The rock is in places scarped to a height of 5ft., and along the sides are several excavations, and a few small cisterns. The level portion of the rock is covered by a few inches of soil. It is not improbable that the place was thus prepared to receive the tabernacle, which, according to Rabbinical traditions, was "a structure of low stone walls, with the tent drawn over the top." At any rate, there is no other level space on the "Tell" sufficiently large to receive a tent of the dimensions of the tabernacle.

At the southern foot of the "Tell" is a fine spreading tree, and near it the Jamia ed Daim, a building of well-dressed stone, with two aisles. The longest dimension is from east to west, and there is a *mihrab* in the southern side. The building probably dates from a later period than the Crusades. To the south-east is a small reservoir with steps, and beyond this the Jamia el Arbain (Mosque of the Forty), a curious building, which has been noticed by all travellers. It appears originally to have been a mosque, and to have been afterwards converted into a small fortress, heavy buttresses having been built against the walls, closing all the doors except one.\*

Between Seilun and Turmus Aya there are distinct traces of an old road, 10ft. wide, running towards Sinjil.

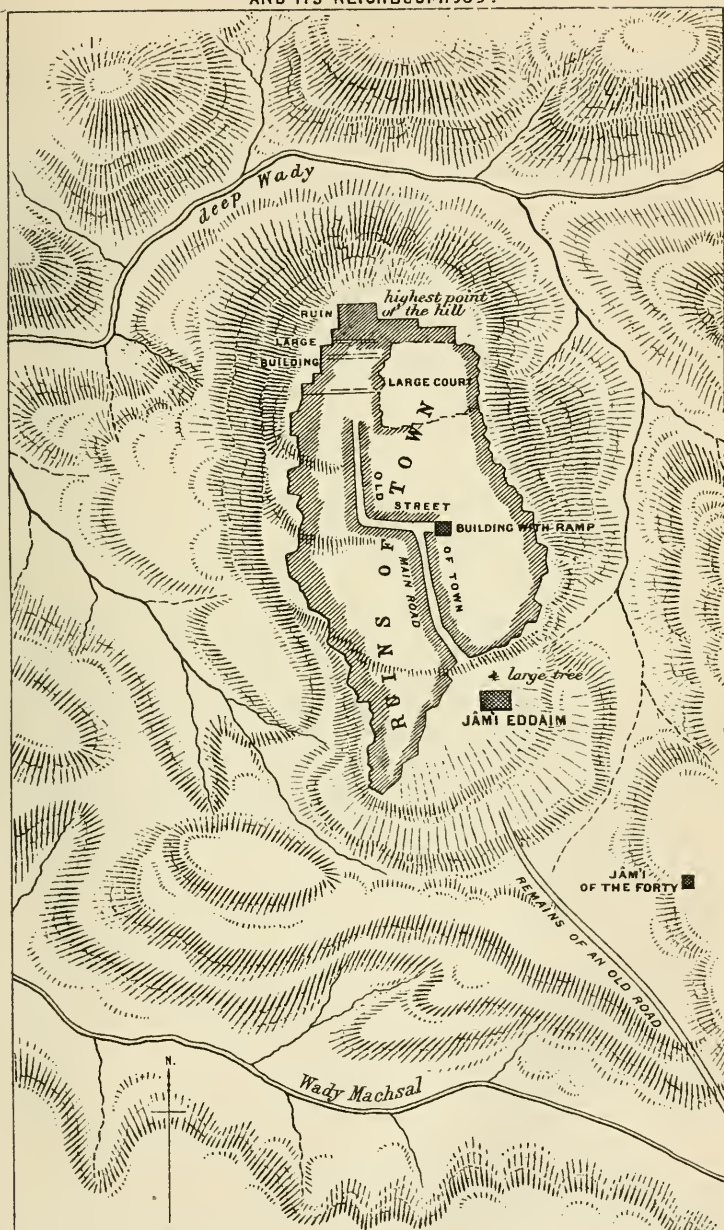
The spring of Seilun is in a small valley which joins the main one a short distance north-east of the ruins. The supply, which is small, after running a few yards through a subterranean channel, was formerly led into a rock-hewn reservoir, but now runs to waste down the valley. There are numerous rock-hewn tombs near Seilun, generally of the same character, a small vestibule, from which a low square door leads into the tomb-chamber. Near the fountain, however, there is a peculiar tomb hewn in a huge fragment of rock. It consists of three loculi, two in the face of the rock and one on the top.†

C. W. W.

\* Photo. 99 gives a view of this mosque, and Photo. 100 a general view of the ruins.

† See Photo. 101.

# PLAN OF SHILOH (SEILŪN) AND ITS NEIGHBOURHOOD.



From a Sketch by M<sup>r</sup>. C. Schick

Stanford's Geog. Estab<sup>t</sup> 6 & 7 Charing Cross.



## THE CLIMATE OF JERUSALEM.

*To the Editor of the "Quarterly Statement" of the Palestine Exploration Fund.*

SIR,—Will you permit me to correct, in your next issue, two mistakes in the remarks upon the climate of Jerusalem, which were reprinted in your January number from the *Journal of the Scottish Meteorological Society*?

1. The rainfall for the season 1863-4 is given as 8·84 inches: it should be 19·175 inches. The error arose from the earliest returns to the Scottish Society having been from observations made with a pluviometer sent out by them, and which proved so ill-adapted for this country that its use was soon discontinued.

2. It is stated that "the sirocco occurred twice," implying that it occurred *only* twice. Some of us, whose lot it is to live in this country, would be only too happy if the sirocco were experienced not more than twice in three years and a half. The fact is, that at certain periods of the year it is one of our most frequent winds, being especially prevalent in the beginning of summer (May), and again in September, October, and November, just before the setting in of the rains. The trying weather, described in Mr. Buchan's paper as having prevailed during the epidemic of cholera in 1865, was due to sirocco.

A remarkable fact in connection with this wind, and one which goes far to account for its peculiarly depressing effect, is that it is *utterly destitute of ozone*. For many years I have been in the habit of experimenting upon it, and have always failed to obtain the slightest discoloration of the ozone paper when the sirocco was at all severe. At one time it occurred to me that the excessive dryness of the atmosphere might possibly prevent chemical action, but the result was the same when the paper was kept moist by allowing one end to remain in a cup of water.

Your obedient servant,

THOS. CHAPLIN, M.D.



THE  
PALESTINE EXPLORATION FUND.

PREFACE.

IN the letters and reports of Lieutenant C. R. Conder and Mr. Tyrwhitt Drake will be found the usual record of work done during the last three months. In February portions of four more sheets of the new map arrived in England, making a total up to the present of 1,250 square miles, which represents the whole of last year's work. The Committee have now made application for another noncommissioned officer of Royal Engineers to strengthen the party and accelerate the survey. If their application to the War Office be granted, as on all previous occasions, the new man will be sent out at once; and if we could see our way to sending out another in addition, the progress of the new map would be very rapid. As to the work already done, it lies in the office of the Fund, ready to be inspected by any who may wish to see it. It is in the highest and best kind of map-making, on a scale of one inch to the mile, and will give, when completed, a perfect map of Palestine as it is, with every village, every ruin, every *tell*, and every existing name. As regards the publication, we shall probably have a plan agreed upon by the Committee before the issue of the next *Quarterly*. At present we can only say that as the sheets are completed they will be published, without any unnecessary delay, in the best style possible, and by the best map-makers in the country. The part of Palestine already surveyed appears in the illustrative sketch-map of the frontispiece. The surveyors are now on the coast, the last letters from Lieutenant Conder speaking of the ruins at Athlit, of which he promises sketches and plans. We have not yet received the sketches and plans of those ruins over which they have already passed. Lieutenant Conder has made careful drawings and examinations of every one for the Committee, and will probably send them home by the first safe means.

The Special Fund for Jerusalem is open, as will be seen from our business sheet. Those subscribers who wish to devote their

gifts to the further exploration of the Holy City, have only to notify their intention to the Secretary.

The American party have started on a preliminary expedition east of Jordan. We hope to have accounts of their progress in the course of the year.

It is gratifying to state that the sale of the new book issued by the Fund is going on more favourably than was anticipated. Nearly five thousand have now been sold, and the new edition, which is in the press, is already largely ordered. The Committee, it must be borne in mind, had in view, in the issue of this book, two objects: first, to show what had been done; and, secondly, to show what yet remained to be done; that the perfect exploration of the Holy Land is no visionary scheme of a few theorists, but an urgent and crying necessity, by means of which controverted points may be decided, the bounds of controversy narrowed, and the history of the Bible brought out in fuller light.

A new arrangement has been made with regard to the photographs of the Fund. Many of these, taken for an archæological or architectural point of interest, have not proved interesting to the general public. A few new ones have been added. A selection of one hundred has now been made, and the following arrangement has been decided on: they can be purchased by Subscribers, instead of at the old rate of one shilling each, at one guinea for twenty-five, two guineas for fifty, or four pounds for the whole set of one hundred. Mr. Stanford, 6, Charing Cross, will still be the agent. The new list, with two recommended lists of twenty-five each, will be ready in a few days.

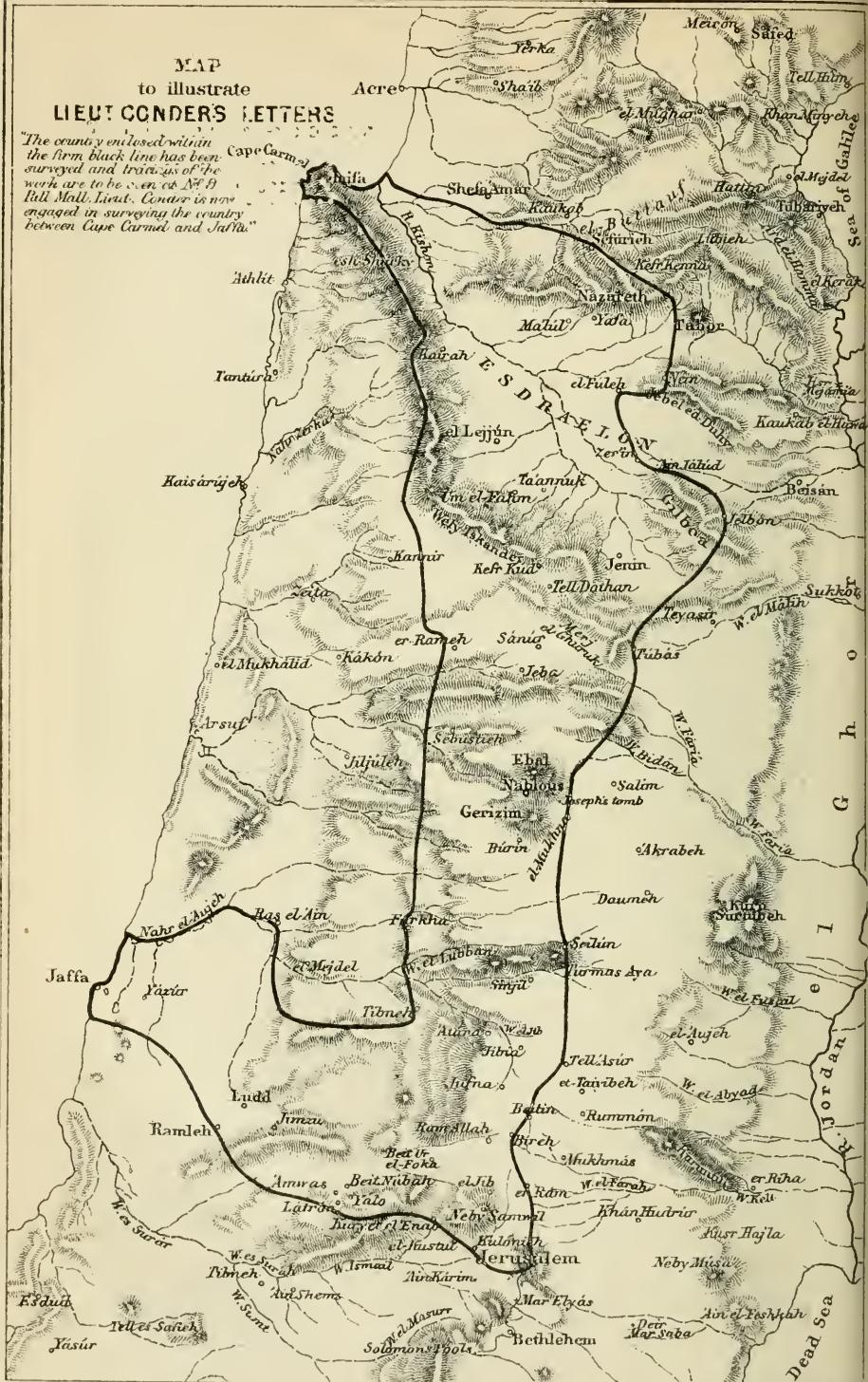
We propose to hold an exhibition in the summer, and have taken the Dudley Gallery for the purpose. We are very glad to announce that, owing to the kindness of Mr. Harper, we shall be able to show the whole of his beautiful sketches of scenery in the Holy Land; we shall also be able to exhibit some of Mr. Simpson's pictures of Underground Jerusalem. M. Clermont-Ganneau has promised a facsimile cast of the Moabite stone. This will be the first time this invaluable *stèle* has been exhibited. There will also be a cast of the recently found stone from Herod's Temple; casts of the Hamath Inscriptions; and, besides other things, the whole of the photographs, collections, models, &c., illustrating the survey of Sinai. It is hoped to open the exhibition very early in June.

It will be seen that the spelling of the Arabic names in Mr. Drake's reports differs from that previously adopted in printing his reports. The spelling is now his own. In the next *Quarterly* he will give his reasons for differing from Dr. Robinson and others.



MAP  
to illustrate  
**LIEUT CONDERS LETTERS**

"The country enclosed within the firm black line has been surveyed and traces of the work are to be seen on the Full Mall. Lieut. Conder is now engaged in surveying the country between Cape Carmel and Jaffa."



# THE SURVEY OF PALESTINE.

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LIEUT. CLAUDE R. CONDER'S REPORTS.

## XI.

### WINTER WORK.

R. E. STATION, HAIFA, *Jan.* 20, 1873.

*Survey.*—In sending home another instalment of our survey, I find a good opportunity for a review of the work which we have done since last July, when first I became personally concerned in the Expedition.

The Ordnance Survey of Palestine now extends over rather more than 1,250 square miles, the work of little more than a year, and representing about one-seventh of the total amount which it is proposed to include. Viewed in the light of work accomplished by a most insufficient party (as far as numbers are concerned), this will, I imagine, be considered a result more satisfactory than could have been expected; but, on the other hand, the fact that at the present rate six more years would be required to complete the undertaking, points to the extreme desirability of increasing the number of men to be employed in the work.

It is calculated that during the first period up to Nablus the monthly rate of progress was about 110 square miles. From Nablus to Haifa it has been slightly over 140 square miles. Thus, up to July, 1872, when the first tracings were sent home, 560 square miles were completed with the exception of the hill-shading. The present tracings contain, roughly speaking, 700 square miles, and are complete, the hill-shading being included.

The main reason for this increase of thirty-six per cent. in the rate of work I take to be the increased size of the sides of triangles in the triangulation, which is rendered possible by the less mountainous character of the country. The detail has been almost as close in the plains as in the hills; the number of ruins visited and examined has been greater, but as it is possible to ride faster, and therefore farther, in the plains, the possible distance apart of trigonometrical stations has been greatly increased. Thus in the Judaean hills the average length of the side of a triangle was five miles; in the Plain of

Esdraelon it may be taken as about ten ; and in the country between Nazareth, Cæsarea, and Akka, at fifteen. Nor has the accuracy of the work in any way suffered, as is proved by the calculations for latitude, which agree within two or three seconds with those of the Admiralty Chart for Akka and Cæsarea, and agree also as nearly as can be plotted with the triangulation. Finally, as commanding points have always been chosen, the detail also has, during the clear autumn weather, been observed from the stations with as much exactness as was obtained with smaller triangles.

I have already reported on the satisfactory manner in which the second base was measured and checked. Haifa is for another purpose as important a station as the Plain of Esdraelon was for checking the plan or azimuth measurements of the triangulation. The heights of the trigonometrical stations are fixed by a chain of vertical angles starting from Jaffa and running up the country to Nazareth, and down to the sea-coast at Haifa. The most direct line observed is carried from one to another over eleven points, whilst other lines, which serve as checks, include even a greater number of successive operations. The error, if there is any, will therefore have increased gradually ; and to test this the actual height of the last point (the Convent on Carmel) has been ascertained by another method to be 556.25 feet above sea level. We are not able, as in the case of the base line, to report on the result of this check, which must await calculations to be made in England, but there is no reason to suppose that the result of these observations will turn out to be at all less satisfactory than that of the measurement of the second base.

There is only one other point in the technical part of the work which is likely to be interesting to subscribers generally: this is the representation of the hills, which has not been previously added to the map. One of our late visitors complained that in no map which he had ever seen of Palestine was there any idea given of the character of the surface of the country, which is certainly a very peculiar one, as the almost equal heights of most of the hills, and the frequent deep and stony valleys which are often concealed until close at hand, and in many cases extremely tortuous, are features very different from any in at least English scenery.

The large scale of our map allows of these features being well shown. The method employed is that commonly used in the Ordnance Surveys of showing the slopes of the hills, not as though a light fell upon them from a corner of the paper, but simply with regard to the comparative steepness of the gradients. Thus the darker shades represent the steeper slopes according to a definite scale, and although on a larger map the accidents of the ground would be even more minutely distinguished, still for its scale the one-inch survey of Palestine would form a perfect military map, as the practicability of the gradients for the passage of infantry, artillery, or cavalry, could be at once obtained by use of the scale of shade. A commander would

indeed be unprepared for the extreme stoniness of the country, which would render military movements very tedious, and for the condition of the roads, but these are not details which it is possible to show on a map.

*Archæology.*—The return which accompanies the maps will, I hope, give a distinct idea of the character and conditions of ruined sites in Palestine, an idea which it is difficult to convey vividly in a short report. A few words may therefore be added in explanation of the return. The number of ruins is approximately 200, of which, however, twenty-one per cent. are evidently modern and of no interest, being merely inserted because they are marked as ruins on the map; these include the small towers of drystone walls with a roof of mud, which are placed in conspicuous positions above the fig, olive, and vine plantations, and from the top of which the watchman looks out to guard the fruit from thieves. By reason of their hasty construction they fall readily into ruins, but are easily distinguished from more ancient and interesting remains.

No less a proportion than thirty-five per cent. of the ruins are, it will be observed, marked "Indistinguishable" or "No indication of date." The state of preservation of the ruins seems to preclude the possibility of assigning a date. The "indistinguishable" ruins consist of heaps of broken stones, worn by the heavy winter rains, until all idea of their original form, finish, or purpose is lost; often the only indication is the grey colour of the mound, to which the name of Khirbeh is attached, or a few scattered stones; rarely indeed is a shaft, base, or capital discovered lying without indication of its position in the original building, and none yet found can date before the Herodian period. In fact, the site of a true Jewish town may be expected generally to give no further indication than the dusty mounds described, except, indeed, such as is derived from the vicinity of rock-cut tombs and reservoirs or channels which, as at Anin (identified by Mr. Drake with a Jewish town), exist close to the accumulation of powdered masonry of some two thousand years ago.

In some cases the old materials have been used in newer constructions, and these again have fallen into ruins almost untraceable; still more frequently pillars and stones have been rolled down hill or carried away for use at a distance.

Thus, for instance, at Nablus the granite shafts, belonging possibly to the Samaritan temple on Gerizim, are to be found amidst the ruins of a Roman villa in the plain, and again in another site of same date at a little distance, whilst even to the present day the habit is continued by the natives, and of the fine blocks once strewn round Tell el Semak, near Haifa, no trace but the holes dug in excavating them is left.

In an archæological point of view, such ruins, though not more effaced than would be expected, considering their great age and the violent action of the weather upon them, are of course wholly without

interest; but when their presence confirms the arguments to be deduced from comparison of names, from incidental references in ancient writers, or from similar sources of information, their true value becomes apparent. Hence even the most unpromising are carefully noted, and already in many instances their discovery has proved of greater importance than could at first be expected.

Turning from these, which form the majority of the remains tabulated, to others in a more perfect condition, the first in interest are perhaps the *tells*, of which eighteen principal examples are scattered over the great Plain of Esdraelon and that of Akka. Their artificial nature is plainly shown by their position, though the name is also given to natural hillocks, such as the Túlul el Jah'ash, which are volcanic outbreaks. In the great plain they appear towards the foot of the hills, on the west and north, generally at the mouth of wadys. No doubt they were originally intended as military posts, perhaps thus guarding the principal inlets by which incursions from wild mountain tribes were to be feared. Their shape is roughly oval, or circular, with sides sloping at between thirty and forty degrees; in size they vary from that of Tell Mutasellim, large enough to be the site of a considerable town, to that of such small mounds as Tell el Súbát, which is merely a low mound; in height they must in some instances be over thirty feet. They are covered with coarse grass, and with thistles, which often attain a height of seven or eight feet, and during a part of the year present a formidable barrier. The ruins on these *tells* are in many instances far more modern, as at Tell Kaymun, mentioned later, but the original builders may have belonged to the Canaanitish period. Unlike those mentioned by Captain Warren in the Jordan Valley, it would seem probable that they are formed of, or cased with, stone such as that of the surrounding hills; but none of them gave any indication of a favourable spot for excavation, as much time and money might probably be expended with but small result.

Next in interest to the tells come the rock-cut tombs and water-channels, of which we have found twenty-six groups. The water-channels were found at Anin, Lejjun, Kireh, and near Saffuriyeh. In the first three cases they are passages resembling the famous one at Jerusalem, between the Virgin's Fountain and Siloam, just broad and high enough for a man to walk in, and terminating suddenly. At Lejjun and Kireh there was a stream of water ankle deep flowing through the passage, and a sound of trickling water at the end, which, in the three cases, was at a distance of some twenty feet from the entrance. The reservoirs near Saffuriyeh are, however, on a far larger scale. They were kindly shown to us by Mr. Zeller, who also, I believe, took Captain Wilson to the place, and a couple of days were spent in planning them, and in tracing the aqueduct which brought water to them. Mr. Drake has already referred to them, so I will merely add that the passage at the western end is choked, and is one of the places where excavation would be desirable, as the ultimate destination of the

large quantity of water thus collected is not at present clear. In each of these four cases a rock-cut cemetery exists in the immediate neighbourhood of the water-channels, and no doubt an ancient town, of which both tombs and aqueducts are the only remains, was also situate near to them.

The groups of tombs may be divided into three classes in the table: those with the well-known *loculus* running perpendicularly in from the walls of the chamber; those with *loculi* in arched recesses, or some other arrangement, counting with them such as are blocked up or broken away, so that it is impossible to say that they have had perpendicular *loculi*; finally, tombs like those at Iksal, already described in a former report, which appear to be of Christian origin. Of the last class there are but two other examples; of the first, or indisputably Jewish tombs, there are ten groups, and the remaining fourteen are included in the second class. The most important of these groups is that at Shaykh Abrayk, where I examined and measured fourteen separate tombs besides the great system of chambers, of which I have already sent home a plan, as well as two others called Magharet el Jehannum and Magharet el Siah, the latter being on a gigantic scale, the side recesses fifteen feet long, and the height of the farther portion of the cavern about twenty feet.

A few remarks on the principal deductions to be made from a comparison of these tombs, will not be out of place here.

It is generally supposed that the perpendicular *loculus* is distinctive of Jewish tombs, and M. De Vogüé lays much stress on the fact of its non-appearance in other countries. At Shaykh Abrayk, however, as well as at Haifa, the perpendicular *loculus* is found associated with two other arrangements of what may be called *attached sarcophagi* standing in arched recesses at the sides of the chamber. In these cases the perpendicular *loculus* appears nevertheless to be the oldest; it is always found in the outer, never in the inner or subsequently excavated chambers. In one case three such *loculi* have been destroyed in subsequently enlarging the chamber; in others they exist on the level of the floor, and below *loculi* raised some three feet, and of different character. It appears just possible that this peculiar arrangement may have been for some special purpose or class of corpses, as distinguished from those of the parallel *loculi*. In one tomb at Shaykh Abrayk, in which these *loculi* occur, a single word is written in Greek letters with red paint in the inner or newer portion of the tomb. At Haifa a rough representation of the seven-branched candlestick appears outside a sepulchre containing both kinds of *loculi*. Neither of these indications of date are, however, conclusive. The Greek-writing nation may have enlarged an ancient Jewish tomb, as indeed the destruction of three of the perpendicular *loculi* would seem to point out; whilst, on the other hand, at Haifa the tomb is in the present Jewish cemetery, and *may* have been re-used by the Jews, and the sculpture be thus later than the tomb.

On the whole, however, there seems to be nothing in these discoveries

to contradict the opinion that where we find tombs with the perpendicular *loculus* we have a trustworthy indication of true Jewish handiwork.

M. De Sauley mentions a tradition in connection with his discovery at the so-called Tombs of the Kings at Jerusalem, that the roofs of sepulchral chambers intended for women were formed of two planes meeting in the centre, which was the highest part, whilst those of the chambers for men were either flat or arched. Of the former construction I have found one example at Shaykh Abru'k, in a tomb consisting of one chamber, with places for eighteen bodies, and an unique arrangement. In one of these *loculi* I found a perfect but very ancient skull.

In conclusion, it appears that not unfrequently two tiers of chambers existed above one another, and often a hole broken in the recess behind one of the *loculi* leads to another system of chambers, which in some cases *seem* to have no other entrance. Many *loculi* are so small that they must have been intended for children.

So curious and interesting are these tombs that I might fill many pages with descriptions and notes upon them, which, however, I must reserve for a future report. It is to be hoped that a perfect, or almost perfect, collection of plans from every part of Palestine will in time materially increase our information as to their date and history.

We can only point to three ruins besides the tombs and water-channels with any certainty as being Jewish. These are, the terraces and ruins of Kh. Jafa, the ancient wells and indications of ruins at Tell Dothan, and the curious cairn at El Mintar. Of the indistinguishable remains, however, a large proportion may most probably be previous to the Herodian period.

Next in order come the Roman ruins, of which we have found twenty-three indisputable examples; they are not, however, of any great importance, with one or two exceptions. The reservoirs near Saffuriyeh just mentioned are, from the cement, Roman in all probability, as well as the aqueduct leading to them, which we traced for a considerable distance, and found that it was possible for it to come, as it is said to have done, from the Ain el Jinán. It is partly built in rustic masonry and mortar, but during the greater part of its length seems to have been merely a small rock-cut channel, as described by Mr. Drake. The temple (as we suppose it to be) at Kh. Abu 'Amir is also no doubt Roman. I have already mentioned it in a report, and sent home a plan and drawings of the details, such as still remain. It is quite possible that a little excavation here might bring to light something of interest, possibly an inscription. The floor is covered with some four feet of rubbish, so that mining would be out of the question. We did not, however, at the time think it advisable to stay for such a task, as the discovery was made in September, when we were at Jenin, and most anxious to move from a temperature of 108° Fah. in the plain to the cooler atmosphere of the hills.

There can be little doubt that Shaykh Abrayk was a place of some importance in Roman times. Capitals; foundations of walls, and the extensive cemeteries which seem to me to show two periods of sepulture—the Jewish on the eastern, the Roman on the more western hills, all point to this fact. The place has been curiously overlooked before, and its identification will be one of interest. A small building, possibly a temple, exists near the town at a spring, and is known as El Is-hakiyeh.

One other point remains where excavation would be desirable, as well as at Abu 'Amir, and in the reservoirs at Saffuriyeh: this is the ruin of El Jireh, near Nazareth. Report X. gives an account of the tombs, which I thoroughly explored and measured; but the ruin on the tell we were unable to examine. I understand from Mr. Zeller that vaults of megalithic masonry (drafted, I believe) support the mound in part, and we employed a native for one day to excavate a passage from above, where the sinking of the surface indicated that the vaulting had given way. His attempts were unsuccessful, and I found that some half-dozen men would be required, and several days would no doubt elapse before we could get through the surface rubbish. Should the Committee consider it worth while, we could easily devote a little time to this exploration when camped in the neighbourhood again, as El Jireh is near the edge of our work. Cement-lined cisterns, scattered stones, a pillar shaft, a bit of plain cornice, and a couple of caves, with traces of the old road to the place, are the only remains to be found on the exterior of the tell; the spot is, however, very well known to the natives, and may prove a site of some interest.

The fine structural tomb of M'alul, first visited by Captain Wilson, the remains of a probable Roman villa at Nablus, which we excavated partially, the Herodian colonnade at Samaria, the altar and sarcophagus at Kh. Khasneh, the ruined building at Lejjun, have all been mentioned in previous reports, and I have taken such plans and sketches as were rendered possible by the condition of the ruins.

To pass on to later times, the Byzantine and early Christian ruins are next in chronological order. These include the two churches of Justinian at Nablus already visited and explored by Captain Wilson, the interesting but almost untraceable little church newly discovered by Corporal Armstrong on Tell Kaymun, of which I have a plan, and the two small convents at the 'Ain Umm el Faruj, mentioned by Mr. Drake in his last report.

Of Crusading, or early Saracenic ruins (for it is not always easy to distinguish between the two), the list enumerates twelve, including the tower of Saffuriyeh, the Burg-Fara'a in the wady of the same name, the tower near Jenin, and the small forts or Khans (in both cases with tower attached) at Rushmia, near Haifa, and on Tell Kaymun, the tower at Iksal, the church of St. John at Samaria (already well known), and the remains of the fosse round the once important town of El Fuleh.

Although the earlier Crusading buildings, when the rounded arch of the Italian Gothic was still retained, are easy to distinguish, those structures which were built *after* the first half of the twelfth century are nearly connected with the early pointed Saracenic style. The use of a draft also was common to both styles, the centre being left with a rustic bow projecting on the average six inches; the draft being three inches broad, and sunk about the same amount; the stones, well proportioned, but of no great size, being on the average five to six feet in length. To this style the tower near Umm el Fahm, which has been called a *vineyard tower* by Mr. Drake, as well as two which I discovered and sketched on the hills east of Jenin, belong. In one of these I found the remains of a door and the shafts of two small pillars, much worn. The object of these small towers, the largest of which is only some thirty feet in length and breadth, is not to me at all clear; they occupy positions at some elevation. Near one (the Kasr at R'aba) no less than five rock-cut cisterns or wells, near the other no water at all, is found; they are not placed in specially commanding situations, as in the case of the Rushmia fort or the building at Tell Kaymun, and altogether they are puzzling both in style and in locality.

Such is a brief account of the archæological explorations which have been carried out during the last six months. More detailed notes, plans, and sketches, await a time when our work shall leave leisure to put them into a connected form, and are carefully stored in order in my note-book.

To sum up, we find 35 per cent. of the ruins "indistinguishable." Of Jewish remains, the rock-cut tombs and reservoirs, the tells, and a few ancient wells and cisterns, are the principal; tombs, reservoirs, temples, and traces of a town, are amongst the Roman remains. Churches and towers represent the works of Christian architects. Adding together Jewish and Roman remains, we find some 35 per cent. to be of interest in illustration of the Bible and Josephus. Were *all* the "indistinguishable" ruins Jewish, we should have 70 per cent., the value of which future examination of the literature of the subject would show, but this proportion cannot be reasonably expected. It seems probable, however, that we have now collected in the country between Nablus and Haifa alone, at least one hundred ruins, which may some day serve to throw light on the Biblical topography of Palestine.

*Geology.*—The later portion of the geological map has proved more interesting than that mentioned in former reports, and I now send home a tracing of the part already complete. It extends from Nablus, where I first commenced it, to Haifa, covering the same ground shown in the traces (700 square miles) and is on a scale of four miles to one inch, sufficient to show all details of importance. The various surface formations are shown by different colours, and a short explanation only will be required.

The blue represents the hard limestone, which includes the following varieties, following apparently in the order given :

1. *Hard dark-grey dolomitic limestone*, the lowest formation of all, generally thinly bedded and splitting into cubes, which gives the appearance of an ancient pavement; it is, however, often in the lowest valleys found to be bedded in thick steps like the "scala" limestone. It is crystalline, and coloured with salts of iron. It is full of natural caverns, the formation of which is a matter for discussion. It contains no fossils, and generally exists where the basalt appears, whence it may be thought to be metamorphic. It belongs to the Neocomian period, that of our own greensand.
2. *Hard, compact, fine-grained limestone*, very crystalline, and breaking with an almost conchoidal fracture, a sort of yellowish grey colour, and bedded more thickly than the former.
3. *Similar to the last*, but thinly bedded, very white in colour, and containing numerous layers of large flints.
4. *Grey, hard, crystalline limestone*, containing *Gryphaea Capuloides*, *Corbula Syriaca*, and other species belonging to the period of the English lower chalk formation.

The next series of formations found at Nablus, immediately overlying the uptilted dolomite, is coloured with yellow ochre, and contains only two varieties—the soft, cheese-like marl, which can be cut with a knife, and which does not seem to harden on exposure; and a very thinly bedded (laminated, one might almost say) but harder chalk, which contains a few flints, and which I observed on the summit of Carmel, where it appears suited to the growth of the *Pinus Aleppensis*, here found in abundance.

The distinction between this group and the upper beds is not well marked, as I have already had occasion to notice, but the principal distinction is the external appearance, for the more recent chalky limestone does harden, externally at least, on exposure to the air, and is found to be softer and softer the farther from the surface one goes, though very often hard veins, almost crystalline, run through the soft.

The principal varieties of this series, which is coloured green, are as follows :

1. White calcareous limestone, containing a few fossils, and soft when quarried, but hard and dark-coloured on the exterior. It contains no flints.
2. Hard, semi-crystalline limestone, ringing like a bell when struck, very white. Interstratified with former.
3. Beds of flint conglomerate (as near Nablus), ten to fifteen feet thick, very hard and compact.
4. Limestone in beds ten feet thick, soft internally and full of very large flints.

The Nummulitic limestone, common in the south of Palestine, does

not appear in the part of the map now completed, in the Jebel Nablus and Galilee.

The German colony at Haifa have carried extensive quarries into the sides of Carmel, and here I had a better opportunity of studying the last-mentioned formation, and obtained, partly through the kindness of Mr. Shümaker, the American consul here, partly by our own observations, the first fossils which we have been able to collect.

These beds are, I believe, generally supposed to be contemporary with the earliest Eocene period; but an inspection of the fossils seems, as far as my limited experience goes, to point to their being earlier, or of the chalk period. They include some specimens of Ammonites resembling the *A. Rotomagensis* found by Captain Wilson at Jerusalem, two kinds of Echinus, a fossil somewhat resembling the Perylla (one of the Dibranchiata—a sub-division of Cephalopods), and some very small shells, apparently of Acephalous mollusks, which must await examination and description by some one more competent to pronounce an opinion.

The beds in which they occur are uptilted at various angles, often almost perpendicular. They show the interstratification of the harder layers, and the side of the hill which they form has a slope of thirty-five to thirty-seven degrees, the dip being nearly coincident with the north-east declivity of the mountain.

Turning to more recent geological features, the outbreaks of basalt which, with one exception, are new discoveries, are first in importance. They are in all thirty in number, occurring in the Plain of Esdraelon, the largest being on the side of Mount Gilboa. My last report gives the principal points of interest with regard to them.

The Plain of Esdraelon is coloured with a purplish tint to distinguish it from the other small plains, because of the difference of its soil, consisting of basaltic *débris* of a rich dark colour, which occurs to a certain extent in the Merj Arrabeh, but differs from the more argillaceous topsoil of the other smaller plains.

The only remaining formations to consider are those found at Haifa, near the sea-shore, and which are quite local, and formed originally a sea beach farther inland than the present line. There are six varieties, found as follows, all being represented by a wash of light red on the map.

No. 1. A fine shelly conglomerate, formed (as it is still forming in places along the beach) by the consolidation of small shells and water-worn fragments of shell and flint, cemented with lime, and forming a building stone of brownish colour far harder than the white limestone. Quarried near Carmel.

No. 2. Coarser conglomerate of broken shells found on the beach.

No. 3. Third quality, still coarser, on the beach.

No. 4. A plum-pudding stone of flints and rolled pebbles, so hard as to be used for mill-stones by the Germans; there are

two qualities, the softer being of reddish colour from infiltration of iron in the cement. This is not found to stand the wear and tear of the upper millstone quarries near Carmel.

No. 5. A coarse breccia of limestone and flints of large size, forming a bed extending along the coast south of Tell el Semak, evidently the old shore-line.

No. 6. A sandstone consolidated by pressure, but not very crystalline. In this the tombs west of Haifa are cut.

These littoral deposits are probably not of one date, the first-mentioned being the oldest. In some of the finer, shells which are but half fossilised, retaining their white colour from the lime in their composition, appear. In other cases the shells are completely changed, and of the same colour with the stone.

The same process which now carries the light pebbles and *débris* into the bay, leaving the coarse and hard near the promontory, can be traced in this earlier formation.

The coarse conglomerate on the south-west side of Carmel denotes a period when the waves came up nearly to the foot of the mountain, and covered the sunken limestone rocks now far inland with *débris* of their own kind, forming a conglomerate now found above the lower limestone to a depth of some thirty feet; but where the force of the wind was broken by the hill, the gentle current brought in the small shelly *débris* and sand, which gradually consolidated, makes now a hard building-stone and a harder mill-stone, and which, in Jewish times, was preferred for the excavation of tombs to the broken and crystalline limestone on the sea-shore. The sandstone is in places found immediately upon a bed of limestone, which has at some time been water-worn, showing that a sandy beach was founded on hard rocks covered some five to ten feet deep.

I cannot conclude this report better than by a few words on the scenery round Haifa, the most picturesque part of the country which we have yet traversed, and an account of which may interest those who care little for the details of geology or triangulation.

We have for the last two months been living literally under the shadow of Carmel, for the long shades creep down the sides of the great flat ridge which extends for fourteen miles from the cliff on which the convent stands to the land end, where it dips down with equal abruptness, and stretch themselves over the plain of Akka at its base, so that Haifa is enveloped in shadow long before the sunset light appears on the brown walls of Akka, and the deep red flush, suddenly followed by a cold blue colour, spreads over the chain, which rises gradually into a high ridge above Safed.

The rugged sides of the ridge of hard dark stone, always steep, often precipitous, are covered thickly with a wilderness of shrubs of dark and rich green. They stream like the torrents which in a heavy winter follow the same course down the narrow wady beds; in parts the bare

rock appears, only covered with a thorny herbage; in other places all is one soft surface of thick vegetation, but hardly ever does any tree even inconsiderable size break the even outline, with the exception of the pines of small size which straggle along the watershed.

The shrubs are principally a kind of pistachio, with red berries, the sponge laurel, the hawthorn, and the arbutus, whose berries are now ripe. The barer parts are covered with the *Poterium Spinosum* (one of the *Rosacia*), with the cisti, or rock roses, and with flowers, of which the white-striped asphodel, the jonquil, cyclamen, red and purple anemone, hawkweed, and daisy are now in bloom. Often, too, the horses' feet press out a sweet smell of the thyme and mint which cover the chalky soil. Round Asfia and Dalyeh there are a few plantations of olives, but with this exception the only signs of life are the herds of goats climbing the sides, or a group of gazelles seen up a steep wady, bounding through the shrubs. Such is "the forest of Carmel," the "fruitful field," and such perhaps it may have been in Bible times, for there is no evidence of any great change in the conditions of climate, which should account for the growth of a forest of *trees* which will not now live on the slopes, though the rich soil still claims superiority to that of the stony plain at the foot of the mountain.

Deep in shadow as the side of the hill always is after midday, there is no lack of picturesque points of view, including the neat white German houses, and the ruinous walls and dirty tumbledown buildings of Haifa itself. A lover of colour and effect could not indeed wish for anything brighter than the red flush on the hills, and the blue and purple shadows towards sunset, whilst the ever-beautiful sea, the dim hills and line of palms on the sand-dunes, give sunrise effects most Turneresque in their appearance.

Not less striking is the view of the Kishon, backed by Carmel, which has never, I believe, appeared in any book of travels. I saw it first on a day when huge piles of silvery cumulous cloud shaded plain and mountain. The ridge of Carmel formed a dark background, the grey and silver river flowed through a flat, marshy middle distance of reeds and brown earth, and red and coppery shrubs. A single palm-tree with an old boat formed an appropriate foreground, and on the opposite side, scarce sixty yards distant, a row of solemn herons stood in contemplation, a couple of white egrets were stepping daintily about, and an osprey flew overhead with a fish in his talons.

There are several pools or streams banked up at the mouth by the sand-dunes between Haifa and the Kishon, and on the opposite side. Hither come the duck in stormy weather, and a few snipe and red-shanks can be obtained. Round one, the palms grow in profusion, and make a truly Oriental sketch. On the shore the dotterel and gulls, in the bay the cormorants, and on a stormy day even an occasional Mother Cary's chicken, may be seen; but animal life is restricted to these and to the ichneumons, which seem to exist in numbers in the sand-hills and amongst the broken tombs.

Thus I may close the report of our winter's work in Haifa. Little remains for us to finish there, and in another week or fortnight we shall be able to leave the comfortable little house in the German colony, where we have been stationed during the rough weather (what little there has been of it this year), and have met with every kindness and hospitality from the worthy and energetic little society who have here gained a footing in Palestine. We shall return to tent-life and outdoor work, and endeavour, if all goes well, during the spring to fill in the country between our former districts and the sea-shore, and attentively to examine the ruins of Cæsarea, Antipatris, Tantura, Castellum Peregrinorum, and other sites in this hitherto little visited and almost unexplored part of the Holy Land.

CLAUDE R. CONDER, Lt. R.E.,

*Commanding Survey Party, Palestine.*

## MR. C. F. TYRWHITT DRAKE'S REPORTS.

### XI.

SHAYKH ABRAYK, Dec. 9, 1872.

*Vineyard-towers (ancient).*—In reply to a question about the watch-towers mentioned in my last report as existing in the thickets near Umm el Fahm, I may say that they have all the appearance of vineyard-towers or garden-houses, but of more solid construction than those now used in Palestine. The old buildings are usually about 20ft.—25ft. square, and constructed of roughly-squared stones, measuring from 3ft. to 4ft. in length, by 18in.—20in. in depth and breadth. These are occasionally drafted with rustic boss. The door is usually very small; the roof of lower chamber, which in one instance remains, is made of blocks laid over a rude arch, which forms their central support. In no case was any trace of mortar or rubble visible. The walls were probably dry, and the crevices would allow a free circulation of air, a great desideratum in buildings such as these, intended only for habitation during the hottest part of summer. Not only amongst the brushwood here, but also in the thickets of Mount Carmel, terraces are frequently met with, showing that once cultivation extended over even the highest parts of the hills, which are now the haunt of the panther and wild boar, the fox, jackal, and wolf, which with the partridge and woodcock are seldom disturbed even by a passing goatherd.

*Aqueduct.*—Lient. Conder made mention in his last report of an aqueduct near Saffuriyeh, of which we made a survey. A few remarks on this work may not prove uninteresting. In Jebel el Siah (collection of water) are three shallow pits which give an unfailing supply, and are

called 'Ayyun el Jinnan (the springs of the genii). Close to these, owing to the alluvial nature of the soil, the aqueduct cannot be traced, but on the hillside below El Mesh-hed it may be seen, a narrow and shallow channel cut in the rock. This winds along the hillsides for a distance of  $2\frac{1}{2}$  miles, and then crosses a small valley. Beyond this are a series of caves now broken in, through which the channel doubtless passed. A little farther on we come to traces of a constructed aqueduct. This gradually becomes more distinct, and at last assumes the form of a rubble wall 5ft. high. This wall is constructed of large rough blocks packed with smaller stones, the interstices being filled up with a hard mortar, into the composition of which potsherds and ashes largely enter.

At the end of the wall all trace of the aqueduct is lost, till we find it again a channel, 2ft. broad and 6in.—Sin. deep, with an inner channel 1ft. broad and 4in. deep, cut in the rock. A little farther and we come to the entrance of a cave, which extends to a length of 580ft., with a height of from 8ft. to 20ft., while its breadth varies from 8ft.—15ft. At the west end of this tunnel the exit passage is blocked up with earth, but leads in the direction of Saffūriyeh, distant  $\frac{7}{8}$  mile, for the supply of which the aqueduct was presumably constructed. Two large *barrages* occur in the cavern, cut in the solid rock, and where necessary supplemented with masonry. In the second or western there appears to have been a lower and an upper sluice; the former through a rock-hewn passage, now stopped up with earth, and the latter through a channel of masonry on the top of the *barrage*. Square holes are cut in the roof at intervals, partly no doubt to facilitate quarrying, and partly for the purpose of drawing water. In many places, especially towards the west end, the roof has fallen in, and the original level of the floor cannot be ascertained. We found, however, a well-defined water-line, and on drawing out the sectional plan this was found to correspond with the level of the entrance and exit. The sides of the caves are lined with several coats of cement; the inner is frequently half-covered with potsherds, stuck over it while wet. Above this comes a layer of cement mixed with ashes, and on the surface a firm hard cement of a pinkish hue, from the quantity of pounded red pottery used in its composition. The roof is not plastered, and in many places natural horizontal cracks in the rock have been somewhat enlarged, the better to act as land-drains for the collection of surface water.

The whole length of the aqueduct from Jebel el Siah to the end of the cave is  $3\frac{1}{4}$  miles. The style of the work leads to the conclusion that it is Roman. There is nothing, however, to show that it is not late Jewish, constructed under the influence of contact with western civilisation.

*Caves and Tombs.*—In the rocky glen which leads down from the ruins of El Tīrḥ to Iksal we found a cave sufficiently curious to deserve mention. A cross cut on a large fallen lintel at the entrance shows it to have been used by Christians, and the interior arrangement seems

to point to a hermit as its occupant. The cave is mostly natural, and is situated in a spur of the hillside, in such a manner that by building a wall of masonry on one side, and a gateway (now ruined) at the end, a chamber was enclosed at the cave's mouth. The stones of the masonry are about 2ft. or 3ft. long, and 1½ft. to 2ft. deep and broad: they are filled in with rubble, and the mortar is mixed with earth and broken pottery.

A cupboard-like recess is left in the masonry, possibly to serve as a seat. The cave itself is divided into two parts: the outer is some 15ft. high at the mouth, but gradually slopes inwards like a funnel, till it ends in a doorway, 5ft. x 3ft. This was formerly closed by a stone door 14in. thick. Inside, the cave is an irregular oval in shape, and about 12ft.—14ft. high. At the far end is a small recess 9ft. from the ground, which can be reached by three rude steps. This would seem the reverend hermit's larder. On the right hand are two more natural recesses, and between them and the door a place has been hewn out which doubtless served as a bed. The floor is many inches thick with the droppings of bats. Struck by this unusual circumstance—most caves being used to shelter the flocks in the rainy season—I asked the reason of it, and was told that the cave was inhabited by a *Ghuleh* (ghoul), and that none of the shepherds dared enter. The native name is Magharet el Mat-húmeḥ.

I may observe that the tombs which occur in such number at Iksal (see Lient. Conder's report), sunk in the rock with an arched loculus on either side, are exactly similar to those I described as existing in the neighbourhood of El Tireh and 'Amwas, on the edge of the Jaffa plain, and in Jebel el Zawī, near Aleppo. The lids, however, differ from these last, which are larger, and worked with a ridge roof and other ornaments, as is common in the case of sarcophagus lids.

From Nazareth we visited some caves at Yafa (ancient, *Japhia*), which are very interesting. As far as I am aware, they are unique in arrangement, for I have never seen anything at all like them in Palestine or Syria. The entrance to this curious place is through a small passage leading out of an ordinary cave of moderate dimensions. This passage is only about 12ft. long, and leads into a small roughly circular chamber, nearly 5ft. high, and some 12ft. diameter. In the floor of this are two circular man-holes, "joggled" round the edge to admit of a slab being inserted; these lead into two lower caves, which again communicate with a still lower story. Besides these circular man-holes there are small doorways in the walls, so that every chamber communicates with each of its neighbours above, below, or at the sides by one or more openings. These ramifications are very intricate and puzzling. My sketch-plan and section will show better than any description the style of cave.

From this peculiar arrangement I cannot look upon them as tombs, for which purpose the number of openings would be clearly objectionable. I am inclined to think they were *matamir*, or chambers for

storage of grain, &c. In that case the upper opening would be used to throw the corn in at, while one of the lower ones would be well suited to draw it out at. The stone in which they are cut is very soft, and can easily be cut with a knife. The tool used in excavation was a pick 2½ in. broad. These caves were first discovered by the fellahin a few years ago, and no bones were found in them. There are, however, rude niches in the walls for lamps: these may have been used by the men who quarried them.

In the neighbouring village of M'alûl is a remarkable tomb constructed with fine masonry. The architectural details of this were sent home by last mail. The natives call it Kasr el Zîr, and they say that Zir was brother to Kulayb (the little dog), and Jerro (the whelp), and that this latter was founder of the great tribe of the Beni Helal (sons of the crescent moon). Of these Beni Helal many tales are told: their original country was in Yemen and Himyar, and the history of their wars is mixed up with accounts of Abu Zayd, of mythical renown. Defeated by a Himyarite king, they took refuge in the plain of Esdraelon; and near Sammûneh some trees of *Acacia nilotica* (the only specimens I have met with in Palestine) are said to have sprung from their tent-pegs. For some reason this country did not suit them, and they emigrated to Egypt, many being slain *en route* by the Emir of Ghazzeh. From Egypt they went to Trobolus el Gharb (African Tripoli). This is the popular story, but Shaykh 'Amîn, the chief Moslem at Nazareth, says that Jerro was father, not of the Beni Helal, but of the Beni Wail.

The Beni Kulayb was formerly a most powerful tribe of Arabs. I am not aware whether they still exist in Arabia, but have reason to believe that they do not. A relic of the tribe, numbering some eighty tents, may usually be found towards the south-east of the Sea of Tiberias.

At this place we have examined and made plans of a large number of cave-tombs. Some of them are of considerable extent. The only trace of inscription consists of the single word  $\pi\rho\theta\epsilon\text{NI}\epsilon$  scratched over a loculus, and rudely marked with red paint. The most noticeable peculiarity of the tombs here is that they have both pseudo-sarcophagi and pigeon-hole loculi. By the former I would designate those loculi which are sunk beneath an arch parallel to the walls of the tomb, and have a thin partition of native rock on their outer side; they have much the appearance of a sarcophagus placed in a niche in the wall, but having no space at either end. The pigeon-hole loculus is of the type so well known near Jerusalem (*e.g.*, in the so-called tombs of the judges), which is driven at right angles to the surface of the wall, and is usually about 7 ft. long by 2 ft. wide, and 3 ft. high, the roof being slightly arched in most cases.

Several of these tombs have produced skulls, which add largely to my collection. No other objects except two small wide-mouthed glass bottles, with handles, and of very pretty shape, have been found in

the tombs. A coin bearing a helmeted head and the legend *URBS ROMA*: reverse, a wolf suckling two children; above, two stars, and below, *SMHS*, another coin of Constantine, together with the many fragments of Roman tiles (red earthenware) and large hewn stones, point to this place having been an important town during the Roman occupation. Just in front of our tent is a limestone sarcophagus. At one end is a bull's head in relief, surmounting a pendent garland; on one side is a tablet (without inscription) of the ordinary Roman type with two triangular ears; on either side of this are bulls' heads, and below a garland; on the opposite side are a bull's and two cows' heads, with comical semi-human faces, also with garlands beneath. A coin (of the *Selencidæ*?) was picked up in the valley below us: obverse, three ears of wheat; reverse, an umbrella, and legend *BACIAEVC* (?). A small female head, of classical type, was picked up a year or two ago near the village, and is now in the possession of Mikhart Kawwar, native Protestant priest at Nazareth.

In one of the tombs, which was found a few years ago by women digging for clay to mend their roofs with, but having been stopped up by the washing down of the soil, had again to be opened, we found a quantity of rude ornamentation in red paint, evidently smeared on with the finger. The interior of the arch, over three of the pseudo-sarcophagi, was daubed in a way similar to that in vogue amongst the Kurds and Arabs of the present day. Lines and intermediate dots form for them the acme of artistic decoration. In other places a palm branch, a rude wreath, a daub representing pendent garlands, a circle filled with cross lines and having two long curved lines terminating in something like the conventional ivy-leaf so frequent in Roman art, proceeding from its lower part, the representation of a palm-tree (?) partly cut in the rock, and a branch-like ornament with six lines on each side recurved at top, form the total of these rude attempts at decoration.

In this chamber we found the two above-mentioned glass bottles buried in the soil which covered the steps of the original entrance, now blocked up, and were just beside a closed *loculus*. This had escaped notice, as the colour of the plaster which covered the two stones forming its door was very similar to that of the walls. On opening this *loculus* we found it full of stones; these were cleared away, and beyond, a chamber was discovered also full of stones, which seem to have been thrown in from a hole in the roof. Nothing but a few bones in *loculi* sunk in the floor was found in this chamber. The corresponding *loculus* on the other side of the entrance door had been opened, and does not lead to any further excavation; hence when we first found this carefully-concealed passage we were in hopes of finding something to repay our trouble. The pseudo-sarcophagi had been covered in with slabs, over which mortar had been laid in the shape of a ridge.

The real entrance to the tomb still has its door *in situ*. It is of stone, and hung on two projecting knobs, which fit into sockets in the lintel

and sill. The walls of this cave, which is cut in very soft white stone similar to that at Yafa, are very smoothly dressed. From this cave a way has been broken into a series of ruder ones which contained nothing of special interest. These farther caves, which evidently belonged to a different tomb or tombs, were roughly dressed with a pick one-third of an inch broad. In these, as well as in all the other tombs we have found here, the pseudo-sarcophagi are more numerous than the pigeon-hole loculi; the probable reason being that the former were originally made, and subsequently, when more of the family wished to be buried in the cave, it was found more convenient to excavate a long loculus beneath the older ones than to cut a new chamber. In the immediate neighbourhood of these tombs, which occupy the hill to the west of the present village, are the foundations of three buildings. The stones are of considerable size (about 3ft.  $\times$  1 $\frac{3}{4}$   $\times$  1 $\frac{3}{4}$ ) which perhaps were tombs of masonry either independent of or constructed over the caves.

*Tells* (mounds). Mounds (Ar. *Tálál*) form a marked feature, not only of the Merj ibn 'Amr, but also of the Plain of Akka and the *ghor* or Jordan valley. In this report I shall, however, confine myself to a few remarks about those in the former locality. They are artificial either wholly or in part, and are, or have been, occupied by buildings. The principal in the Plain of Esdraelon are—1. Tell Ta'annik (*Taanach*); 2. T. Mutasellim (near Lejjun; *Megiddo*, the Roman *Legio*); 3. T. Shaddúd, near *Akhrayfis*; 4. T. Sammúneh (partly volcanic, *Simonias*); 5. Tell el Kasis, and 6. Tell Kaymun (*Jokneam*). Besides these are the smaller ones of Tell el Shemman, T. el Dhahab, and Tell Thora (mentioned by the same name in old itineraries). In cases (as at 2, 4, 6) where a projecting spur at the edge of the plain has been made use of, the earth dug out of the deep trench which was cut to separate the mound from the mainland, so to speak, was used to heighten that side of the mound; the steep sides, surmounted by a wall, being doubtless sufficient protection on the plain side.

On Tell Kaymun, which is a very good example, we found the ruins of a square crusading fort, measuring forty yards each way, and containing five chambers on each side opening into a courtyard. A vault still exists at the north-east corner with a pointed roof of rag-work. A little below this is the foundation of the east end of a church with triple apse. That in the centre is circular, while the side ones are rectangular. Judging from a corbel found here, the building was used by the Crusaders, but a Byzantine capital found among the Arab graves on the plain below points to the probable date of the original building.

*Autumn weather.*—The winter rains still hold off, though the quantity that fell in October and November—the “former rain”—has proved quite sufficient to enable the fellahín to begin their ploughing. These rains produced an immediate change in the appearance of the country: grass began to sprout all over the hills, the wasted grain on the threshing-floors soon produced a close crop some six inches high.

The cyclamen, white crocus, saffron crocus, and jonquil are in full flower on the mountains, the *ballut* (*Quercus agilops*) is fast putting out its new leaves, and in sheltered nooks some of the hawthorn trees are doing the same. The *Zemzarât* (species of Judas tree?) is gorgeous at the foot of Carmel with its clusters of lilac blossoms. These, to our notions, are hardly signs of coming winter, but the advent of numberless starlings and common plovers on the plains and woodcock in the woodlands point to rain not far distant. We hope, however, to gain our winter quarters at Haifa before really bad weather sets in. For the next two months we shall be principally engaged in completing the work done in the field since July. There are, amongst other things, some 600 square miles of country to be put on the fair plan, making in all just 1,200 square miles surveyed. These, we hope, will be ready for sending to England not later than the middle of February.

1873. *Difficulties with Natives*.—We have lately had some difficulties with the natives, which have proved rather serious. This is entirely the fault of the local Turkish Government, who are unwilling to finish any case off-hand, and thus teach the insubordinate fellahín a lesson which they would not forget, and which would secure us from further annoyance. On the contrary, each official tries to make the affair as long as possible in order to gain the more bribes. Promises of assistance have been sent us from Constantinople and Beyrout, and I hope the affairs will be satisfactorily settled before we leave Haifa.

The last ebullition of feeling on the part of the fellahín took the form of firing on one of our surveying parties, happily without effect.

*Temperature*.—There has lately been a great and welcome change in the temperature, the average of the maximum thermometer being about 75 deg., and the minimum 45 deg. in the twenty-four hours.

*Star-shower*.—On the evening of the 28th ult. I noticed a star-shower which continued for some hours. The shooting stars seemed all to fall from the zenith. There were remarkably few to the south-east and south-west, while to the north and north-west they were particularly bright and numerous.

Of late, east winds have been very prevalent, which, though dry and cool, are exceedingly trying to those who have been any length of time in the country. To new-comers they appear fresh and agreeable. So long as they continue, rain cannot fall, but as soon as the wind changes to the south-west we may expect a downpour. During the east winds the ozone papers are hardly affected, while a south-west or west wind turns them the deepest possible colour. These latter winds are a most grateful tonic, and one whose effect is immediately felt after the heats of summer.

#### HAMAH STONES.

HAIFA, Dec. 15.

Having lately seen my friend, the Rev. W. Wright, of Damascus, I urged on him the advisability of taking plaster casts of the Hamah

inscriptions. I have just received a letter from him saying that he has made casts of the stones (? all) under the most favourable circumstances, as he was able to wash and turn them as it suited him, the stones themselves having been bought by H.I.M. the Sultan. They are probably on their way to Constantinople by this time. Mr. Wright has most kindly offered to place these casts at the disposal of the Palestine Exploration Fund, and I am writing to him on the subject, and hope that they will reach England next month.

We are now in winter quarters, and have begun our indoor work. The house we have taken for the rainy season is one belonging to the Prussian colony, of which I hope shortly to send some account.

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## XII.

GERMAN COLONY, HAIFA, *Jan. 27, 1873.*

IN a former report (*Quarterly* for July, 1872) I gave a short account of the Prussian colony at Jaffa. In face of the changes likely to come about in Palestine, these first attempts of Teutonic colonisation cannot fail to be of interest. I may preface the account of the colony with a few additional words regarding the origin of the society, and the first steps taken to obtain a footing in the Holy Land.

The elder Herr Hoffman—father of the President of the Jaffa colony—was a well-known lawyer, and a friend and admirer of Dr. Bengel. He had also great influence with Frederick, first king of Würtemberg, who made him a grant of a large tract of somewhat barren land at Kornthal. Here a colony was formed of Pietists—a sect which numbers many adherents among the simple folk of the Black Forest. After a time, however, the character of the settlement became more communistic than religious.

Herr Hoffman the younger, who had never been a member of the Kornthal community, then founded the Society of the Temple at Kirschenharthoff. Any persons who joined this society had lands allotted to them, which were bought back at a valuation if the settlers chose to go away.

After the establishment of Kirschenharthoff it was judged advisable to begin the real colonisation of Palestine. In 1862 four men came out, and after a short stay at Urtás—near the Pools of Solomon—they came to Nazareth. After many difficulties and much privation endured, they were obliged to leave the country. In 1866 twelve persons established themselves at Akhnayfis, near Nazareth, on the edge of the plain of Esdraelon. Here they lived in huts and hastily-improvised shelters, the result being that several succumbed to the climate. The rest moved on to the neighbouring village of Sammúneh, where they all fell victims to fever. In the end of 1868 the colony at Haifa was founded, and hitherto has proved much more healthy than that of Jaffa. In the

former place but few deaths have occurred, while in the latter nearly every member of the community has been attacked with fever, and no less than eighteen deaths from this cause have occurred during the summer.

The inhabitants of the colony are : men—single, 40, married, 47 : 87 ; women—single, 32, married, 51 : 83 ; children, 84. Total, 254. These persons occupy thirty-one dwelling-houses, to twenty of which out-houses, such as cart-sheds, stables, granaries, &c., are attached. The houses are built of a soft white, chalky stone, which is easily dressed, but hardens on exposure. This is quarried from the side of Carmel, half a mile distant. A few of the houses are built of a reddish rag-stone, quarried on the spot, and much harder than the former. All the constructions are neat and well fitted with European doors, windows, &c., forming a striking contrast to the squalid, untidy dwellings of the natives in the town and on its outskirts.

The trades and occupations are distributed as follows (the figures denote the number of men employed in each) : 1 architect, 3 blacksmiths, 2 butchers, 18 carpenters (of these 4 are natives), 1 cooper, 1 dyer, 20 farmers, 1 master-mason and stone-cutter (employing 6 Germans and from 40—45 natives), 2 merchants, 3 millers, 2 millwrights, 1 painter, 1 saddler, 3 shoemakers, 2 tailors, 1 turner, 10 vine-dressers, 2 waggon-builders, 2 whitesmiths.

Of these the architect, carpenter, tailors, and general dealer or merchant are frequently employed by the natives, their work being much superior to any other procurable in the country.

The wages paid to Germans are—

Man	...	...	...	12 to 20 piasters per diem.
Woman	...	...	...	7 to 10    "    "    "
Child	...	...	...	3½       "    "    "

To natives—

Man	...	...	...	5 to 15 piasters per diem.
Woman	...	...	...	5       "    "    "
Child	...	...	...	3½       "    "    "

The total extent of land hitherto purchased is 450 acres, of arable land, which also contains 140 olive trees, and 17 acres of vineyards on the lower slopes of Carmel, near the houses. Deceived in their hopes of obtaining the grant of land promised to them by the Turkish authorities, the colonists have determined to buy such land as they require when opportunity offers. The vineyards are likely to prove successful ; vines grown from a layer have produced grapes the first year. In colder climates they seldom produce before the third or fourth year. Wine has been made with considerable success.

There are two schools established here, conducted by 3 German and 1 Arabic teachers. In the upper school there are 25 boys and 16 girls ; in the lower, 25 boys and 2 girls. Total, 68. In the upper school the subjects taught are, reading and writing in Arabic, English French,

and German, arithmetic, drawing, geography, history, mathematics, singing, and the study of music. In the lower school, reading and writing in Arabic and German, arithmetic, and singing. Religious instruction is given in both. The girls are taught knitting, sewing, and embroidery in the industrial school.

On the whole, the colonists have not experienced much difficulty in dealing with the natives and Turkish authorities. One of the most constant annoyances is the want of anything like a legal determination of landmarks and boundaries. Frequently when a piece of land has been bought, and the colonists commence to cultivate it, a part is claimed by the neighbouring proprietor. Annoyances such as these are somewhat difficult to surmount, especially when the "custom of the country" (bribery) is utterly eschewed.

It is proposed to increase the colony as occasion serves. The main difficulty consists in the choice of proper persons, who will propose to themselves to further the spiritual rather than the worldly aims of the society.

The site of the ancient Sycaminon has always, I believe, been placed at Haifa el 'Atikah or old Haifa, which lies on the eastern side of the spit of land projecting north from Carmel. Indications as to its site are sufficiently vague, its position in the Antonine and Jerusalem itineraries being laid down at twenty and twenty-four, sixteen and fifteen miles from Cæsarea and Ptolemais ('Akka) respectively. Haifa el 'Atikah is about twenty and ten g.m. from the two places. There is a neighbouring ruin, however, to which no history attaches, but the claims of which may perhaps be stronger. This is now called Tell el Semak (Fish-mound), and in this word the three initial consonants of Sycaminon are found; it is very possible that the Greek name having no meaning to Arab ears, has, as is so often the case, been corrupted into a common Semitic word. The traces of ruins at this place are very considerable; a tell on a little promontory forms the nucleus, around which are found innumerable fragments of marble slabs, glass, pottery, and hewn stones. This place entirely commanded the coast road, as the sides of Carmel here rise abruptly, and only leave a plain of some 200 yards in width along the shore.

Haifa el 'Atikah is said by the inhabitants of the modern town—and not perhaps without reason—to have been merely the old site of Hepha. The ruins are now covered with gardens belonging, according to tradition, to the owners of the houses which formerly stood there. One of the principal Christians told me that he was many years ago digging there—according to the usual custom—for ready-dressed building stone, when beneath the sill of a doorway the workmen found a small brass jar, containing 1,000 gold pieces, as he added, of the date of Helena. Helena's name, however, is used to imply remote antiquity, as Cæsar's and the Devil's (of Cæsar's camp, the Devil's highway, &c.) are in England. The coins were probably early Byzantine, as I have lately procured a fine gold coin of that period, found near the same spot.

Among the gardens are found some rude tessellated pavement *in situ*, and on the shore are traces of a small harbour and a mass of rubble work, seemingly of Roman construction.

About a mile and a half south-east of Tell el Semak is a wady, the mouth of which is laid out in gardens, producing vegetables, figs, olives, locust trees, pomegranates, vines, and apricots. These are watered by a spring called 'Ain el Siah, which bursts out of the hard white limestone rock, here plentifully sprinkled through with black flints in finger-shaped nodules. Below the spring is a rock-hewn tank with filtering apparatus, from which the water is led by an aqueduct into the gardens. A little higher up the wady are ruins of two massive buildings, the ashlar of which has nearly disappeared, leaving only the stout rubble, which has the appearance of Roman work, as has a broken semicircular arch. These are called the diura, or monasteries, and tradition says that the last abbot was one Thul el Serjiláui, which seems a reminiscence of Paulus Sergilius. On the opposite side of the narrow ravine is a double cave, inhabited by a fellah who owns a small garden here. This cave is called the monk's stable and Liwan. The lower cave has square recesses cut out of the rock along two sides, which are to all appearance mangers. The upper cave, which is open in front, is reached by a staircase from the first. Facing this place is a spring flowing from a small recess hewn in the face of the rock; beside it are two niches with angular tops much resembling in size and shape two *sedilia*. The name ('Ain Umm el Faruj) and appearance of this spring denote its former connection with some phallic rites, now long since forgotten.

*Weather.*—This winter there has been an unusually small amount of rain in Palestine, and unless there is a pretty heavy fall before the end of the month there will be a total want of crops in many places where they have hitherto been unable even to plough. This is especially the case in the district of Jenin and Nazareth. Further north, in Syria and the Hawran, I hear that there has been a sufficient rainfall. Up to date the raingauge shows 2.25 inches less than had fallen at the same time last year. The weather has generally been bright and clear, colder than usual, with almost continual east winds. The Nahr el Mukatta (Kishon) and Nahr Naamán (Zelus) have only lately been able (by the help of easterly gales) to force open a channel to the sea through the sandbank which closes their mouths during the dry season.

On the sand-dunes near the mouth of the former stream, I observed a curious deposit of pumice-stone, the pieces varying in size from a good-sized apple to a pea, and being mostly water-worn. This is in the inner part of the bay, whither the current brings the finest and lightest things, small sand, seaweed, and tender shells; the heavier pebbles and shingle are left farther west. The only place whence this pumice-stone can have come, as far as I am aware, is from one of the Italian volcanoes, wafted over, in all likelihood, by the west winds which prevail in summer.

CHAS. F. TYRWHITT DRAKE.

## EBAL AND GERIZIM, 1866.

On the 6th March Lieut. Anderson and I arrived at Nablus, with the view of carrying out some excavations on Mount Gerizim, and examining the points of interest in the neighbourhood. Before, however, attempting to describe the result of our labours, it will be well to give a general sketch of the locality. At Nablus the range of hills which traverses Palestine from north to south, is pierced by a remarkable pass, running nearly east and west; on the north the pass is flanked by the range of Mount Ebal, rising at its highest point to 3,029 feet above the sea, or 1,200 feet above the level of the valley; on the south by the range of Mount Gerizim, rising to 2,898 feet. Between these two mountains the valley rises gently towards the east, to the waterparting between the waters of the Mediterranean and the Jordan, at which point there is a remarkable topographical feature which is not often met with—a recess on either side of the valley, forming a grand natural amphitheatre, the scene, in all probability, of the ratification of the law. From this point the ground falls gradually to the rich plain of El Mukhna, which runs north and south, and is bounded westwards by the steep eastern declivities of Ebal and Gerizim. Where the valley merges into the plain there are two sites of great interest—Joseph's Tomb and Jacob's Well. The beauty of the Vale of Nablus has been frequently described by travellers, and by no one more happily than by Lieut. Vandeveld, who grows eloquent on the charming character of the vegetation, the joyous notes of the numerous birds of song, the soft colouring of the landscape, and the bright sparkling streams. The latter, perhaps, more than anything else, give the vale its peculiar charm. The grateful sound of running water strikes the ear at every turn, and produces a quiet sensation of enjoyment, which is fully appreciated by the traveller weary with the dry and thirsty hills of Judæa.

Amidst this wealth of verdure, clinging as it were to the slopes of Gerizim, the mount of blessings, lies Nablus,\* the ancient Shechem; its situation, with easy access to the Mediterranean on the one hand, and to the Jordan Valley and transjordanic district on the other, marking it as a place of importance from the earliest period.

*Mount Ebal.*—The summit of Ebal is a comparatively level plateau of some extent. There is no actual peak, but the ground rises towards the west, and attains its greatest elevation near a small pile of stones. The view from this point is a perfect panorama, and one of the finest and most extensive in the country, embracing Safed, Jebel Jermuk, and Hermon on the north; Jaffa, Ramleh, and the maritime plain on the west; the heights above Beitin (Bethel) on the south; and the Hauran plateau on the east. The upper strata of the nummulitic limestone, of which the mountain is composed, are so cracked and broken, apparently by the action of weather, that the surface of the plateau, at first sight,

\* Photos. 95, 96.





looks as if it were covered by a rude pavement; and it was some time before we realised that it was quite natural. Towards the east end of the plateau is the remarkable ruin called by the Arabs "Khirbet Kneesch."\* It consists of an enclosure 92ft. square, with walls 20ft. thick, built of selected unhewn stones, without mortar. In the thickness of the wall are the remains of several chambers, each about 10ft. square, and at two opposite ends there is a projection of 4ft., as if for defensive purposes. There is a cistern within the building, and round it are several heaps of stones and ruins. Excavations were made, but without result. It is not easy to form an opinion on the object of this building; it is too small for a fortified camp, and though the chambers are somewhat similar to those in the fortified churches, the interior space, 50ft. square, is too restricted to have held a church. There was no trace of any plaster, and nothing that would enable us to connect it with the altar said to have been erected by Joshua on Mount Ebal.

The contrast between the rich vegetation on Gerizim and the barrenness of Ebal has frequently been commented upon by travellers. This arises from the structure of the rock, the strata dipping towards the north across the valley, and thus preventing the existence of springs on the southern slope of Ebal. The mountain, however, is by no means so sterile as has been supposed; for a considerable height it is clothed with luxuriant cacti gardens, carefully cultivated in terraces, and above these, to the very summit, rise a succession of terraces well supplied with cisterns, that speak of a careful system of cultivation and irrigation at a former period. Many of these terraces are well preserved, and planted in springtime with corn, which is as fine and healthy-looking as any on Gerizim. The northern slope of Ebal is rich in springs, and almost as well supplied with water as the northern slope of Gerizim.

At the foot of Ebal there is a modern Moslem cemetery, and scattered amongst the cacti gardens, and over the southern slope, are numerous rock-hewn tombs, which have been alluded to in a previous paper.†

*Mount Gerizim.*—Immediately above Nablus there are several stone quarries, and in places the limestone strata stand out in bold cliffs, which seem to overhang the town and form a peculiar feature in the view from the opposite ridge, at the point where the road to Samaria crosses it. From the top of one of these, whence escape to the mountain behind would be easy, it is natural to picture Jotham delivering his striking parable (Judges ix. 7—21).

On reaching the summit of the mountain, by the road from the fountain of Ras el 'Ain, a long narrow shoulder is seen stretching eastward to the Samaritan place of sacrifice.‡ On the north the ground descends abruptly to the Vale of Nablus, and on the south there is a more gradual slope, with no water and sparse cultivation. East of the place of sacrifice rises the true peak of Gerizim, crowned with the well-known ruins, and form-

\* See Photograph 92.

† See notes on "Tombs," *Quarterly Statement*, No. III., 1869.

‡ Photos. 125, 128.

ing the eastern extremity of the ridge. From this point a spur stretches out northwards, and partly encloses the natural amphitheatre mentioned above. The mountain is almost entirely composed of nummulitic limestone. The summit of Gerizim is a small level plateau, having its largest dimension nearly north and south. The northern end is occupied by the ruins of a castle and church, the southern by smaller remains, principally low and irregularly built walls. In the midst of the latter is a sloping rock, which is regarded by the Samaritans with much veneration; it is said to be the site of the altar of their temple, and they remove their shoes when approaching it. At the eastern edge of the plateau, a small cavity in the rock is shown as the place on which Abraham offered up Isaac. West of the castle, and a short distance down the hill, some massive foundations are pointed out as the "*twelve stones*" which were set up by Joshua after the reading of the law.

Considerable excavations were made under the superintendence of Lieut. Anderson, and the accompanying plan made of the ruins. The castle \* is rectangular, with flanking towers at each of its angles; on the eastern side are the remains of several chambers, and over the door of one of them is a Greek cross. The walls are built of well-dressed stones, which have marginal drafts, and are set without mortar; many of them appear to have been taken from earlier buildings.

The church is octagonal. On the eastern side is an apse, on the northern the main entrance; on five sides there are small chapels, and on the eighth side there was probably a sixth chapel, but this could not be ascertained, as the foundations had been almost entirely removed. There is an inner octagon which gives the plan some resemblance to that of the "*Dome of the Rock*" at Jerusalem. The flooring is partly of marble, partly of tiles, and below this a platform of rough masonry was found; in the intervening rubbish a very early Cufic coin was turned up, which had apparently slipped down through the joints of the tiles. The only capital uncovered was of a debased Corinthian order. The church is believed to have been built by Justinian, *circa* A.D. 533.

South of the castle there are no massive foundations, but numerous small walls, and amongst these are several cisterns half-filled with rubbish; a pathway of late date runs along the crest of the hill from south to north, passing in front of the "*twelve stones*," where for some distance it rests on a mass of loose stones and rubbish, in which some Cufic copper coins were found. The "*holy place*" of the Samaritans † is a portion of the natural rock dipping to the north-west, and draining into a cistern half full of stones; an excavation in an adjoining enclosure uncovered a mass of human bones lying on a thin layer of some dark substance, which had stained the rock beneath to a dark burnt-umber colour. The Amran said they were the bodies of priests, anointed with consecrated oil, but they seemed rather to be hasty interments, such as would be made in time of war.

There are several platforms of unhewn stone, somewhat similar to the

\* Photo. 90.

† Photo. 89.

praying-places in the Haram at Jerusalem; and one of these near the place at which Abraham is said to have offered up Isaac, is approached by a curious flight of circular steps.\*

The "*twelve stones*" form part of a solid platform of unhewn masonry; there are four courses of stones, and the upper, shown as the "*twelve stones*," is set back eight inches; two of the stones were turned over, but no trace of an inscription was found on them. The stone when exposed to the air is of a dark bluish-grey colour, but when newly broken it has a cream-coloured appearance.

East of the castle are the remains of three platforms, and below them on the slope of the hill are broken terraces; the platforms have evidently been built to support some building on the top of the hill, and add to its appearance; and they, as well as the "*twelve stones*," may not improbably have formed part of the substructure of the Samaritan Temple. Of the temple itself there is nothing left, but to judge from the appearance and construction of the platforms, it probably stood on the site now occupied by the ruins of the church and castle; if it were south of the castle every stone must have been removed, as the ground was carefully examined and no trace of the foundations of any large building was found.

North of the castle is a large pool, and below this and surrounding the hill on all sides are the ruins of a considerable town, to which no distinctive name could be obtained. These ruins are most marked on the southern slope,† where a portion of the enclosing town wall, and the walls and divisions of several of the houses, can be seen; the walls are of unhewn stone, set without mortar.

Near the Samaritan place of sacrifice, at the western foot of the peak, are some inconsiderable ruins, to which every one we asked gave the name which Mons. De Sauley heard, Khirbet Louzah. This Dean Stanley identifies with the second Luz, founded by the inhabitants of Luz when expelled by the Ephraimites from Bethel.

At the extremity of the arm mentioned above as running northwards from the castle‡ is a mound, partly artificial, and isolated from the ridge by a deep ditch. There are traces of steps on the four sides leading to the summit of the mound, which was occupied by a building fifty-three feet square, having walls of great thickness. Some excavations were made, but with the exception of a few Roman coins nothing of interest was found. Below the mound on the north are some excavations in the rock, apparently for holding water.

*Scene of the reading of the Law.*—The natural amphitheatre§ previously mentioned as existing at the waterparting near the eastern end of the Vale of Nablus was, probably, the scene of the events described in Joshua viii. 30—35. It may be remembered that, in accordance with the commands of Moses, the Israelites were, after their entrance in the promised land, to "put" the curse on Mount Ebal and the blessing on Mount Gerizim. "This was to be accomplished by a ceremonial in

\* Photos. 91, 127. † Photo. 88. ‡ Photo. 126. § Photo. 93.

which half the tribes stood on the one mount and half on the other; those on Gerizim responding to and affirming blessings, those on Ebal curses, as pronounced by the Levites, who remained with the ark in the centre of the interval."\* It is hardly too much to say of this natural amphitheatre that there is no other place in Palestine so suitable for the assembly of an immense body of men within the limits to which a human voice could reach, and where at the same time each individual would be able to see what was being done. The recesses in the two mountains, which form the amphitheatre, are exactly opposite to each other, and the limestone strata running up to the very summits in a succession of ledges present the appearance of a series of regular benches. A grander sight can scarcely be imagined than that which the reading of the Law must have presented: the ark, borne by the Levites, on the gentle elevation which separates the waters of the Mediterranean from those of the Dead Sea, and "all Israel and their elders, and officers, and their judges" on this side and on that, "half of them over against Mount Gerizim, and half of them over against Mount Ebal," covering the bare hill-sides from head to foot. Two questions have been raised in connection with the reading of the Law: the possibility of hearing it read, and the possibility of assembling the twelve tribes on the ground at the same time. Of the first there can be no doubt; the valley has no peculiar acoustic properties, but the air in Palestine is so clear that the voice can be easily heard at distances which would seem impossible in England; and as a case in point it may be mentioned that during the excavations on Mount Gerizim the Arab workmen were on more than one occasion heard conversing with men passing along the valley below. It is not, however, necessary to suppose that every word of the Law was heard by the spectators; the blessings and cursings were in all probability as familiar to the Israelites as the Litany or Ten Commandments are to us, and the responses would be taken up as soon as the voice of the reader of the Law ceased. With regard to the second point, Lieut. Anderson's plan † of Ebal and Gerizim gives a good representation of the ground and the principal distances; but without making a minute contoured plan of the mountain sides (a work of great labour), it is not possible to form a correct estimate of the number of persons who could be assembled within the amphitheatre. There are, however, few localities which afford so large an amount of standing ground on the same area, or give such facilities for the assembly of a great multitude.

At the foot of the northern slope of Gerizim is one of the prettiest cemeteries in the country, consisting of a courtyard, with a well, and several masonry tombs, one of which was said to be that of Sheikh Jusuf (Joseph). We were not allowed to examine the tombs, but were much struck with the care bestowed on the trees and garden within the enclosure. The place is called El Amud (the column), and the Rev.

\* *Dictionary of Bible*, art. Gerizim.

† Published in "Recovery of Jerusalem."

George Williams has with much probability identified it with "the pillar that was in Shechem," where Abimelech was made king (Judges ix. 6); and with the oak of Moreh, near which Abraham built his first altar to the Lord after entering the promised land, and Joshua set up a great stone (Joshua xxiv. 26).

Jacob's well, at the eastern entrance to the Vale of Nablus,\* is covered by a vaulted chamber, round which are the ruins of a church, dating probably from the fourth century. On a second visit to Nablus in May, Lieut. Anderson made a careful examination of the well, and has given an interesting account of his descent, in the "Recovery of Jerusalem." He found the well to be 7ft. 6in. in diameter, and 75ft. deep; there was no water at the bottom, and the well was lined throughout with rough stones, being sunk in alluvial soil. According to Dr. Robinson, the depth in 1838 was 105ft. Christians, Jews, Moslems, and Samaritans, agree in considering this to be the well made by Jacob, and as the tradition goes back to the early part of the fourth century, there seems little reason to doubt that it is the same well at which our Lord met the Samaritan woman. Lieut. Anderson aptly remarks on this point that "the existence of a well in a place where watersprings are abundant is sufficiently remarkable to give this well a peculiar history."†

The small square building known as Joseph's Tomb lies a short distance north of Jacob's Well; within it we found two modern inscriptions, one Hebrew, the other Samaritan, and two vases for burning offerings, similar to those seen at Meiron. Within them were the ashes of some articles of apparel, which had recently been burnt. The tradition with regard to the Tomb is not so continuous as that of Jacob's Well. The little cemetery described above was shown to Maundrell as Joseph's Tomb, and the accounts of earlier travellers are not quite clear. Joseph, as we know, was embalmed in Egypt, and placed in a coffin or sarcophagus, with a view of his being carried by the Israelites to Palestine, and his body was probably conveyed in one of the waggons which accompanied the twelve tribes during their wanderings. The depth of alluvium at this spot, as indicated by Jacob's Well, precludes the idea that his body was placed in a rock-hewn chamber; and if this be really the site of his burial, the sarcophagus may still remain in the soil beneath the little chamber.

The town of Nablus contains many ancient remains, of which the most interesting is the principal mosque, with its fine Gothic portal.‡ A description of the town, however, with its many ruins and its numerous springs, hardly comes within the scope of the present paper, nor is there space to enter upon the history of the place, or the solution of the many questions relating to the disputed sites on Gerizim and elsewhere, such as that of the altar on which Abraham offered up Isaac, &c. These have been fully examined by Robinson, Williams, Stanley, De Saulcy, and other travellers, and in the "Dictionary of the Bible," arts. Ebal, Gerizim, and Shechem.

C. W. W.

\* Photos. 131, 132. † "Recovery of Jerusalem," page 465. ‡ Photo. 94.

## JERUSALEM.

IN a letter dated 28th February, Mr. Schick informs us that he has found portions of three aqueducts at different levels, outside the Damascus Gate, and that he hopes to be able to trace out the source from which they derived their supply of water.

The excavations in the Muristan are being continued, and a series of large tanks connected with each other, and 40ft. deep, has recently been discovered.

In the Haram Area Mr. Schick has confirmed the existence of the ditch north of the north-west angle of the platform, which was first noticed by Captain Warren. He finds several walls of small stone beneath the surface, and believes the old ditch to have been arched over.

Mr. Schick has also found indications of the existence of a vaulted passage near the Golden Gate, running apparently from the old postern in the east wall towards the platform; and after a close examination of the ground near Solomon's Throne, he has come to the conclusion that there was once a tower there similar to that at the north-east angle.

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IDEOGRAPHIC INSCRIPTION FOUND AT ALEPPO,  
AKIN TO THOSE OF HAMATH.

THE attention of *savans* has been for some time directed to the ideographic inscriptions found at Hamath, near Damascus, and made known to the scientific world chiefly through the exertions of Captain Burton and Mr. Tyrwhitt Drake. When these two gentlemen were at Jerusalem in 1871, I told them of a similar kind of inscription existing at Aleppo, of which, thanks to the kindness of my friend M. Colonna Ceccaldi, I possessed a drawing made by M. Paucker, and which I gave to them to copy. It consists of two lines, containing figures whose analogy with those of the Hamath inscriptions is evident. The original stone, of basalt like those of Hamath, is embedded partly in the wall of a mosk, and partly in the hareem of an adjacent house. Only the former portion is visible, and consequently either the beginning or the end of the inscription is wanting in the above copy. Mr. Drake, on visiting Aleppo a short time after, found the stone still in its place in the mosque El Kakán; but the engraving given in "Unexplored Syria" differs considerably from the one under consideration.

The authenticated existence at Aleppo of an inscription belonging to the same system of writing as those of Hamath is a fact of considerable importance, as tending to show that these latter, whatever their origin, age, or meaning, are neither confined to one particular locality, nor to

be considered as isolated and accidental specimens. They must be no longer treated as a chance phenomenon, but as part of a regular system of writing belonging to that part of the country (*système régional*); and it is very probable that further researches in North Syria will bring to light other inscriptions in the same character.

Refraining from making any premature efforts to decipher these inscriptions, I will merely remark that the signs are very few, and repeat themselves frequently in groups, which seems to show that they belong to very simple phonetic elements, syllabic if not alphabetical. Apart from any historical interest which they may possess, these inscriptions have a special value in that they prove almost conclusively the existence of an apparently figurative system of writing specially belonging to Syria, and dating from a very early epoch, and may consequently be the means of bringing about some unexpected solutions of the problem as to



the sources of the alphabet. Without wishing so far to dispute the results at which science has already arrived as to assert that the Phœnician alphabet was entirely derived from this ideographic writing, which, so to say, died in giving the alphabet birth, one may still think that the one exercised a certain influence over the formation of the other. It is of course still a question whether this Syrian system of ideography is original, or merely an offshoot from the systems of the two great civilised centres, Egypt and Assyria, of which countries Syria was always alternately the satellite. It is possible that the Syrian ideographic system and the alphabet may have nothing to do with one another, but may both have been borrowed successively and independently from the same source at an interval of several centuries.

CH. CLERMONT-GANNEAU.

## THE HAMAH INSCRIPTIONS.

BY THE REV. W. WRIGHT, OF DAMASCUS.

THE existence of the Hamah stones was made known by Burckhardt in 1812, but not with sufficient emphasis to arouse to action English archæologists.

For the last six or seven years I have occasionally heard of these inscriptions, but seldom from any one qualified to give a correct account of them. And after one has been taken a score of times to see a wonderful inscription, which turns out to be only natural stone cracks, or at best a piece of Nabathæan, he does not feel sufficiently enthusiastic for a gallop of two or three days to verify the tale of some ignorant Arab. From all accounts I inferred that the inscriptions were only a conglomeration of wasm, or marks on stone, similar to those burnt on the camels by the Arabs. I, however, resolved to make a careful inspection of the inscriptions the first time my duty led me to the neighbourhood of Hamah. Meantime, Mr. Johnson, in the first *Statement* of the Palestine Exploration Society, and Captain Burton, in "Unexplored Syria," have done much to bring these important remains before the British and American public.

The copies of the inscriptions, as presented to the public, were necessarily unsatisfactory, from the manner in which they were taken. Mr. Johnson says, "We did not succeed in getting squeeze impressions, for fanatical Moslems crowded upon us when we began to work upon the stones, and we were obliged to be content with such copies of this and other inscriptions found on stones *over* and *near* the city gate, and *in* the ancient bridge which spans the Orontes, as could be obtained by the aid of a native painter."\*

Mr. Johnson seems to have seen only one of the stones, that in the corner of the shop, for he incorrectly speaks of the others as "*over* and *near* the city gate, and *in* the ancient bridge," no doubt led into topographical errors by the vague reports of the people.

Captain Burton describes the location of the stones where I found them, and where they must have been for a long time; but the inscriptions which he brought away were also the work of "the native painter." In "Unexplored Syria,"† he says, "the ten sheets accompanying this article had been applied to the blackened or reddened face of the four stones—one of which, it will be seen, has a double inscription—and the outlines were afterwards drawn with a reed pen."

Captain Burton, not having full confidence in the native painter and the subsequent corrections, pressed me to get squeezes for the Palestine Exploration Fund, and Mr. Drake, the able representative of that society

\* First Statement of American Palestine Exploration Society, page 31.

† Vol. I., 335. "Unexplored Syria" reached me without the Hamah inscriptions, so I have not been able to compare them with the casts.

in this land, knowing that my duty led me towards Hamah, urged me to get, if possible, plaster casts of all the inscriptions. Mr. Green, H.B.M.'s vice-consul at Damascus, had been also looking forward for an opportunity of becoming thoroughly acquainted with northern Syria, and to secure if possible the Hamah stones, or at least facsimiles of them.

An invitation from the Governor-General of Syria, who was on a tour of inspection throughout his province, gave the opportunity, and on the 10th November, 1872, we started from Damascus, I on a missionary tour, and Mr. Green to join the Waly.

On the second day, when in Yabroud, in our school, I secured three large ancient manuscripts of ecclesiastical legends, written on thick cotton paper. They are bulky volumes, bound in strong boards, and written in Karshouni.\*

On the 25th November we were the Waly's guests at Hamah, and the next morning early we sallied out to find the inscriptions. We had not been able to get "Unexplored Syria" before starting, and so we had to commence operations without any advantage from the labours of our predecessors.

We had first to find the stones, and that simple operation was not so easy as might seem, for everybody denied any knowledge of them at first. At last we resolved we would ask every one we met, and curiously enough, after this resolve, the first man we spoke to was Suliman el Kallas, in the wall of whose house was inscription No. I.†

The finding of the other three stones, for there are only four inscribed stones in all, not five, as in some accounts, occupied a considerable portion of the day. Meantime, while we were hunting up the stones in an independent fashion, the governor was taken to see them, and had telegraphed to the Sultan, asking him to accept them for the Constantinople Museum. As Mr. Green and I anticipated, Subhi Pasha was far too learned an archæologist not to recognise at a glance the value of the Hamah inscriptions, and far too patriotic to let them pass into the hands of foreigners. He is probably the most learned man among the Turks, and has one of the finest private numismatic and general archæological collections in the world. The Constantinople Museum is his own creation, and he was glad to secure for it these treasures. He, however, consented at once to let us have plaster casts of all the inscriptions, and promised also to bring the stones to the serai, where we could work at them at our leisure. Under other circumstances we should have experienced great difficulty in taking casts of the stones, for a series of fruitless attempts by foreigners to secure the stones had brought the Hamathites to consider the inscriptions of extraordinary value, and we heard many expressions of defiance, and threats of violence towards anybody that tried to interfere with their sacred and valuable treasures. Later on, when

\* See Rénan's "*Langues Sémitiques*," page 266.

† I shall speak of the stones in the same order as Burton.

it became known that the governor would take the stones, we heard men vowing that they would destroy the inscriptions.

Mr. Green and I became nervous as we saw a repetition of the Moabite stone tragedy almost imminent. We assured the men, in whose ground the stones were, that the Waly would not take them without paying more than their value, and that now that the Sultan had accepted the stones, anybody who injured them would be severely punished. We thus enlisted the cupidity and fear of the Hamathites in favour of the stones. When we informed the Waly of the danger, he put the inscriptions under the protection of Ibrahim Pasha for the night, and we warned also the city guards that dire punishment would be inflicted on them if any mishap befell the stones. They were carefully guarded that night, and on the following day the governor paid for the stones, prices varying from three to fifteen napoleons each, and they were all lodged safely in the serai.

The stones once within our reach we worked incessantly at them until we had duplicate plaster-of-paris casts of all the inscriptions. We were much delayed by the difficulty in procuring gypsum, and getting it burned and pounded, and we also had to remove from the inscriptions the dirt and fog of ages, and some of them were almost filled with lime mortar dashed into them. Several attempts also were made to decoy us from our labours, but at length, after patient hard work for nearly two days, we had the stones perfectly clean, and got perfect facsimiles of the inscriptions.

Captain Burton says "the fancy of the copyist had been allowed to run wild" in the copies which he procured; and though he says "these vagaries have been corrected," it is to be feared that some of the artistic fancies of "the native painter" may still be found in the published inscription.

I am happy to say that our casts have none of the vagaries of the native painter. They settle the first question for English archæologists, which is not, as Mr. Hyde Clarke supposes, "whether these drawings, reproduced by Captain Burton, are to be considered inscriptions or not,"\* *but whether they are perfectly correct or not.* As facsimiles they answer in the affirmative by the actual lengths of lines, and bars, and letters, and blanks, perfect even to the faults of the stone.

The removal of the stones produced a greater commotion in Hamah than will be readily supposed, and the fact of a British consul and Protestant missionary being the guests of the Waly of Syria, seemed strange and portentous in the eyes of the fanatical Moslems, but was somewhat reassuring to the cringing native Christians. Celestial portents, also, were not wanting, for on the night following the removal of the stones to the serai a meteoric shower in all its eastern splendour was seen by the Hamathites, who saw in every brilliant sparkling train the wrath of Heaven predicted against Hamah in the event of the stones ever being removed. Next morning an "influential deputation"

\* "Unexplored Syria," Vol. I., 353.

waited on the Waly to tell him of the evil omens of the night, and to urge a restoration of the stones; but the Waly assured them that inasmuch as no one was hurt the omens were good, and might be regarded as the approbation of Heaven to their loyalty in sending these precious stones to their beloved sovereign the Commander of the Faithful.

Of the stones I have little to add to Burton's description. There are four stones and five inscriptions. The stones are close-grained basalt (fully ripe, as the Arabs say) from the east of the city. Many such stones are lying about, some of them with Greek inscriptions, and some carved into the figures of animals, &c.

No. 1 is only a fragment. The lines seem to be broken across the middle, and therefore the sense is not likely to be complete. When taken out of the wall it proved to be only a thin piece broken off a large stone. The remainder of the inscription is yet to be found.

No. 2 proves, by the last line ending in the middle of the stone leaving a blank at the left side, that the inscription reads from right to left, beginning at the top.

No. 3 is the stone which was so efficacious in lumbago, that a man had only to put his back against it to be made perfectly well. This stone was very large.

No. 4 is on the end, and 5 on the side, of the same square stone, that in the corner of the shop, proving that the lines are read horizontally, and not from bottom to top and *vice versa*, as Mr. Hyde Clarke asserts. The two faces were carefully dressed for the inscriptions, but the part of the stone most remote from the inscriptions was undressed. The stone was doubtless placed in the corner of a square building.

No. 5 has parts of the upper and lower lines defaced and illegible. This is the inscription the facsimile of which is printed in the first *Statement* of the American Palestine Exploration Society, and incorrectly described as "one of the inscriptions found upon the bridge."\*

All the inscriptions except the first are complete, barring the defaced letters. The boundaries of the inscriptions and lines are clearly defined by raised bars. The stones on which they were inscribed were very large. It took four oxen and fifty men a day to bring one of the stones a distance of half a mile. The others were cut in two, and the fragments inscribed were carried to the serai on the backs of camels. The stones were dressed narrow towards the parts on which the inscriptions were found, and the bases were undressed for several feet. Apparently they had been inserted in masonry with the dressed and inscribed parts standing out of the wall. They seem to have been intended to be publicly read, and were therefore doubtless in the vernacular of the people of Hamah.

NOTE.—The casts have not yet arrived, March 31, 1873.—ED. *Quarterly Statement*.

\* First Statement of American Palestine Exploration Society, page 32. Burton speaks of the American facsimile as No. 4, Vol. I., page 333, though he correctly describes No. 4 as having only four lines.

## DISCOVERY OF THE ROYAL CANAANITE CITY OF GEZER BY M. CLERMONT-GANNEAU.

*From the Journal of the Paris Geographical Society.*

GEZER is one of the most ancient towns in Palestine, and was in existence prior to the arrival and settlement of the Israelites in that country. In the book of Joshua it is classed amongst the royal cities of Canaan; its king, Horam, was defeated by Joshua whilst attempting to relieve Lachish, which was besieged by the Israelites. Later, after the conquest, Gezer was included in the territory of the tribe of Ephraim, and, in fact, marked its extreme western limit. The Ephraimites allowed the Canaanites they found there to remain. The city was assigned to the Levitical family of Kohath.

It is mentioned several times during the wars between David and the Philistines, on the confines of whose territory it was situated.

During Solomon's reign one of the Pharaohs, for motives of which we are ignorant, made an expedition against Gezer, which resulted in the capture and burning of the town. So great, however, was the strategical importance of the point, that, even in ruins, Gezer was of sufficient value to form part of the dowry of Pharaoh's daughter when she became Solomon's wife. Solomon immediately rebuilt Gezer and Lower Beth-horon, which was near it.

The town of Gezer reappears, under the name of Gazara, in the history of the wars of the Maccabees. Taken by assault in the first instance by the Jews, it passed successively into the hands of the two contending parties, who attached equal importance to its possession. John Hyrcanus, the Jewish commander, made it his military residence.

In spite of the distinct indications contained in sacred and profane works, in spite even of the positive statement in the "Onomasticon" of Eusebius, that Gezer was four Roman miles from Emmaus-Nicopolis, a site well known at the present day, the town of Gezer, though sought for, had not previously been found.

Whilst running through an old Arab chronicle, by a certain Mudjir-ed-din, M. Clermont-Ganneau quite accidentally came upon the passage which led to this important discovery. The Arab historian relates that about the year 900 of the Hegira an engagement took place between Jamboulat, Emir of Jerusalem, and a party of Bedawi raiders, between the village of Khulda and that of Tell el Gezer. The latter name means literally the hill of Gezer, and the Arab name is exactly the same as the Hebrew one. As the village of Khulda is still in existence, and, according to the details contained in the account of the Arab author, Tell el Gezer was so near it that the shouts of the combatants were heard at both places, the latter locality should have been easy to fix. No village, however, of this name was shown on the best maps of Palestine. After having determined theoretically the exact position which the Arab and Jewish Gezer ought to occupy, M. Clermont-Ganneau decided upon making an excursion to test the accuracy of his views on the ground. This expedition, made under adverse circumstances, without escort or

tent, and in a desert country wasted by famine, was crowned with success. At the point which he had previously fixed upon, M. Clermont-Ganneau found the Tell el Gezer of Mudjir-ed-din, and the ruins of a large and ancient city, occupying an extensive plateau on the summit of the Tell. On one side were considerable quarries, from which stone had been taken at various periods for the buildings in the town, as well as wells and the remains of an aqueduct; a little beyond this were a number of tombs hewn out of the rock, the necropolis in which repose the people who have successively inhabited the old Canaanite city. It is scarcely necessary to add that this place is exactly four Roman miles from Emmaus-Nicopolis, and that it completely meets all the topographical requirements of the Bible with regard to Gezer.

M. Clermont-Ganneau points out the importance of the discovery with reference to the general topography of Palestine. Gezer being one of the most definite points on the boundary of the territory of Ephraim, the current views on the form and extent of that territory, as well as of the neighbouring territories of Judah and Dan, must be very materially modified. This result alone is of importance, and makes the discovery of Gezer an event in Biblical researches.

The means by which M. Clermont-Ganneau was enabled to find the town are also worthy of remark; it was by availing himself of a source which is too much neglected, the Muhammedan writings on the history and geography of Syria. This work is certainly difficult and thankless, but the example we have before us shows that it is not unproductive, and that it may lead to the most interesting and unexpected discoveries.

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#### NOTE ON THE DRAWINGS AND COPIES OF INSCRIPTIONS FROM THE "SHAPIRA COLLECTION" SENT HOME BY LIEUT. CONDER AND MR. DRAKE.

THOUGH hastily coloured, the outline of each object has been very carefully followed, and those who saw the drawings and the originals in Jerusalem were of opinion that they were remarkably faithful representations.

Lieut. Conder states that he was unwilling to copy the inscriptions, as owing to the imperfect observation of many specimens errors might have been made which would invalidate their value if executed by one ignorant of the characters employed; but Dr. Chaplin and Mr. Drake, who were more familiar with the characters, copied carefully from the originals, or from good squeezes, those sent home.

The total number of drawings is upwards of 200. These represent all the important specimens in the collection up to the time of Lieut. Conder's last visit to Jerusalem, in October, 1872, the number of pieces then in Mr. Shapira's collection being about 700. Since then, however, the number has been increased to 1,000, and several very important specimens added, of which it is hoped to obtain drawings soon. A great number of the specimens so closely resemble one another that one or two examples are typical of each group. A large number are broken.

The drawings sent home contain specimens of each group, *perfect* ones being always taken in preference to fragmentary ones.

Among these drawings are copies of all the inscriptions yet produced by Mr. Shapira, except a few which have been sent to the office of the Fund by Dr. Chaplin. The genuineness of the inscription is warmly supported by Professor Schlottmann in the "*Zeitschrift der Deutschen Morgenländischen Gesellschaft*," but the opinions of English scholars have as yet been unfavourable.

*To the Editor of the Quarterly Statement of the Palestine Exploration Fund.*

SIR,—Will you allow a few topographical queries? In 2 Kings xx. 4, we read, "afore Isaiah was gone out into the middle *court*." In the Hebrew it is not court but *city*, יְרֵיָה. What is "the middle city"? The Sept. make it the middle *court* (ἀντή), but the Hebrew is quite explicit. Some critics (Keil, &c.) make it "the central portion of the city, or Zion city," but this does not seem satisfactory. Can you give any light?

In the same book (ch. xxii. 14) we read, "she dwelt in Jerusalem in the *college*." This is literally "the second" (part of the city). The Sept. gives it ἐν τῇ Μασσενᾶ, and in Nehem. (xi. 9) we read "over the *second city*," as it should be rendered; also in Zeph. i. 10 we have "an howling from the *second city*." See Keil and Delitzsch, who render it "the *lower city*." What is the exact meaning of these "seconds"?

H. B.

# ERRATA, JANUARY NUMBER.

- P. 7, line 9, read Nablus *below*.  
     line 10, ,, soft limestone *above*.  
 P. 8, line 7, ,, from bottom, species of *truxalis*.  
 P. 9, line 18, ,, *Quercus coccifera*.  
 P. 12, line 14, ,, from bottom, *stretching below all, to the foreground*.  
 P. 13, line 17, ,, Mr. *Duisberg*.  
     line 21, ,, Mr. *Duisberg*.  
     line 25, ,, in *search* of saltpetre.  
     line 3, ,, from bottom, E' *Aal* (l not b).  
 P. 14, line 9, ,, Mr. *Duisberg*.  
 P. 16, line 6, ,, *found; in one piece (a disc) it occurs*.  
     line 13, ,, *low foreheads*.  
 P. 19, line 22, ,, Rev. J. Neil (for T. Neil).  
 P. 21, line 7, ,, from bottom, *of the third wall*.  
 P. 23, line 8, ,, from bottom, El *Tirch*.  
 P. 24, line 23, ,, El *Tirch*.  
 P. 25, line 15, ,, El *Tirch*.  
     line 23, ,, El *Tirch*.  
     line 27, ,, El *Tirch*.  
     line 7, ,, from bottom, *Haifa*.  
     line 2, ,, from bottom, El *Tirch*.  
 P. 26, line 11, ,, *Jinjar*.

THE  
PALESTINE EXPLORATION FUND.

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PREFACE.

WE have, before all things, to call the attention of our subscribers and readers to the speeches made at the Annual Meeting, and especially the statement made by the treasurer of our position and prospects. The funds are in an unsatisfactory condition. We have the summer, an unproductive season, before us; we are pledged to carry on the Survey, which is the most important and the greatest work ever yet undertaken in Palestine; and we want to send out M. Clermont-Ganneau, for one year only, to clear up, if possible, some of the points of dispute and mystery with which the topography of Jerusalem is beset. We therefore most earnestly beg our readers to assist us, first, in forwarding their own subscriptions, and secondly, in bringing the Society before the notice of others.

As regards the expense of the Survey. It ought, with printing, publishing, lithographing, &c., and including all expenses in Palestine, except those of excavation, to be covered by about £3,000 a year. The first six months of the present year have not brought in quite half that sum. We must add to this the expenses of "management," *i.e.*, advertising, rent, postage, salaries, &c., which are kept as low as possible, but which, with every economy, cannot be brought under £500.

Nothing could be more satisfactory than the progress of the work, and nothing more beautiful than the portions of the map already sent home. In the reports of Lieutenant Conder and Mr. C. F. Tyrwhitt Drake will be observed especially the accounts of Carmel; Athlit, remarkable especially as the site of the *Castellum Peregrinorum*, the landing-place for pilgrims; Cæsarea; the tombs of El Midyeh, supposed by some to be the tombs of the Maccabees; and

Mr. Conder's account of recent work done in Jerusalem. Among other things, Lieutenant Conder has obtained from Mr. Schick a hundred and fifty new rock levels. These, with the information already acquired by Major Wilson and Captain Warren, will enable us to produce a ground-plan of the city, which will form the most important set of data possible for all topographical questions. Mr. Shapira continues to accumulate fresh collections of inscribed pottery, of which Lieutenant Conder sends us copies. The first collection was bought by the German Government, but the opinions of the English *savants* are still unfavourable to the genuineness of the inscriptions.

The tracings of Lieutenant Conder will be exhibited at the Dudley Gallery during the months of July and August. We have here to call the attention of our readers to this exhibition, which contains, besides Mr. H. A. Harper's most beautiful collection of water-colour sketches, illustrations of the whole work of the Society.

All the particulars of the newly-found Samaritan stone will be found in this number.

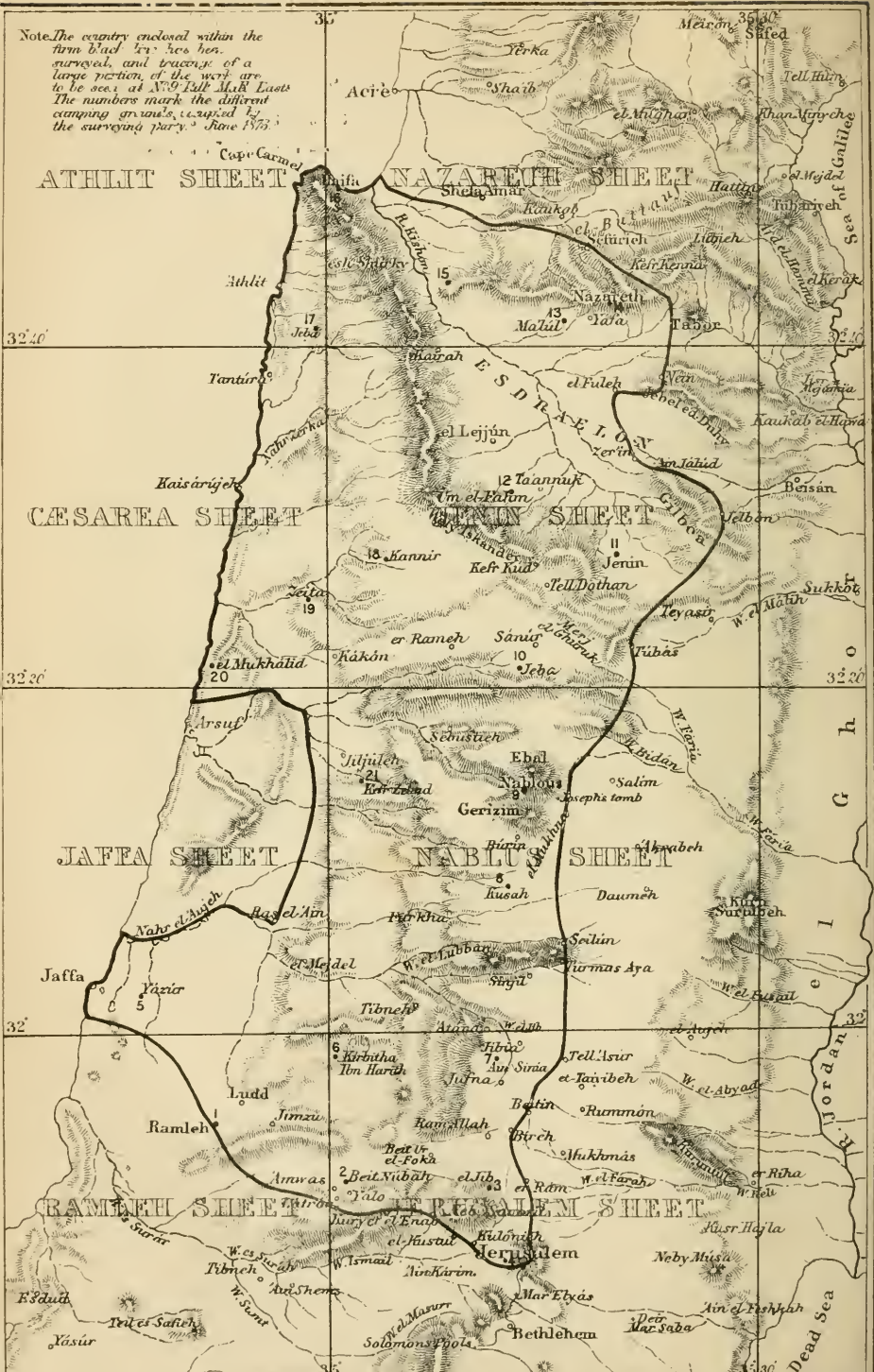
Mr. Drake, who is returning to England for a short time on sick leave, was prevented from being present at the Annual Meeting through the accident of a telegram being wrongly delivered. The Survey party has been strengthened by the addition of Corporal Brophy, R.E.

The American party are now on the east of Jordan engaged in their preliminary expedition. Their party, too, has been strengthened by the addition of two assistant engineers.

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Note. The country enclosed within the  
thin black line has been  
surveyed, and traces of a  
large portion of the work are  
to be seen at N<sup>o</sup> 1 Pitt Mills East.  
The numbers mark the different  
camping grounds, surveyed by  
the surveying party. June 1875.



# THE SURVEY OF PALESTINE.

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LIEUT. CLAUDE R. CONDER'S REPORTS.

## REPORT XII.

THE SOUTH SIDE OF CARMEL.

P.E.F. CAMP, JEBBA, 12th March, 1873.

*Survey.*—The last day but one of February found us once more in the field, and the work has, during the present month, been continued without interruption, in spite of two or three thunderstorms, which fortunately passed over us by night. The difficulty of choosing a good site for a camp, a place at once central for the work, at convenient distance from the old boundaries on the east, and from the sea on the west, and at the same time possessing good water and provender for our animals, is now far greater than in the country in which we worked last year. The villages are few, most of them are very poor, and the water brackish and unwholesome. Thus we were forced to content ourselves with our present camp, which is at the foot of the hills, rather to the south of Athlit, and at some distance from the main ridge of Carmel, which an inspection of our last tracings will show to have been the former southern boundary of the work.

The task of triangulation also requires more judgment than formerly. The ruined towers of Athlit and Tantúra would, I had hoped, have afforded standing places for the theodolite; but the first proves merely a wall and the second (also solid) has had the facing of ashlar removed as high as it could be reached from the ground, and it thus stands on a base about two-thirds the size of the upper overhanging part, where the facing could not be reached. We could therefore only observe to, and not from these points. On Carmel we obtained a very extensive view, and succeeded in bringing our observations over its highest ridge, and connecting with the points in the maritime plain. Towards the south, however, the hills are low, with flat broad tops, and differing in height very slightly. To obtain a commanding and conspicuous point was therefore impossible, and whilst choosing the best, we had some difficulty in recognising it again from a distance. Our calculations, however, show that we obtained it correctly, and the operations are altogether satisfactory.

The average size of the triangles is ten miles side, but many of the lines are twelve to fifteen miles. The triangulation extended from the new base now stretches across Palestine, from Tabor on the east to Acca, Haifa, and Cesarea on the west, and forms a good basis for extension to the hills of Safed, and to the Sea of Galilee. It will be checked by its correspondence with the old work on the east, and with the Admiralty latitudes on the sea-coast, and will finally be brought back (by June, it is hoped) to the old base at Ramleh.

The execution of the detail on Carmel is a work of more wearisome and difficult nature than any we have had since leaving the Judæan hills. Huge valleys, upwards of 1,000 feet deep, wind tortuously from the main ridge to the sea. They have to be traced carefully, as one can never predict where their next bend may carry them. Ruins appear on hills opposite to you, seemingly within easy reach, and hours have to be spent in dragging your horses down over hard, sharp, slippery rocks, through a jungle of thorny shrubs, and up another ascent of perhaps thirty-five degrees' slope before one can arrive at the site, and commence its examination and survey. Often the remains are quite modern, and ill repay one's trouble, but the thoroughness required in our work makes even these negative results valuable.

Two special surveys will also be required in accordance with our instructions, and I hope soon to be able to send home copies; they will include the neighbourhood of Athlît (Castellum Peregrinorum), and of Cesarea. At Tantûra, the ruins are not sufficiently numerous to require separate survey.

*Archæology.*—Besides the three principal ruined sites at the above-mentioned towns, concerning which you will hear from Mr. Drake, there are a great number of scattered remains throughout our present neighbourhood. A curious low line of hills, of which I shall have occasion to speak later, running along the sea-shore about half a mile inland, but gradually approaching as it goes north to the narrow beach, is quarried on both sides throughout its whole extent. At a distance the appearance of the rocky scarps and steps resemble the walls and flat roofs of a village, and only by the greyer colour is it possible to distinguish between the two. The hills farther inland present similar quarries, at Kh. Shih, and in two or three places on Carmel.

All these quarries are full of rock-cut tombs; at Kh. Shih, at Kh. Umm el Shukuf, and Kh. el Shellaleh, on Carmel, and on the sea-coast, at Kh. Melbah, and near Sarafend, Kefr Lam, and Tantûra, I have collected plans of from fifty to sixty of these sepulchres, the greater part being full either of *tîbn*, or of bones and skulls, probably of poor passengers murdered by the natives of the villages. In these ghastly receptacles the turban or dress of a victim may often be found more or less complete.

The majority of the tombs have three loculi parallel to the three sides of the chamber, with a door on the fourth. In each group, however,

at least one with loculi running in perpendicular to the line of the sides occurs. On one we found a cross very distinctly cut. Most of the doors were originally closed by a cylindrical stone of about three feet diameter, and some eighteen inches thick, rolling back into a recess on one side. This method is well known, and its relation to the words of Scripture, "Who shall roll away the stone for us?" has often been shown. Here, however, for the first time I saw some of the stones, fallen flat in front of the doors.

In the midst of the wilderness of Carmel we came on the scanty indications of Crusading work. It is a good instance of the very little that remains of even comparatively modern buildings. From a distance we could see the walls of a ruined village known as Khirbet el Shellaleh, standing as a promontory surrounded with valleys 600 to 700 feet deep, and with steep sides, unapproachable except by one winding road. It commands the country round, though higher hills exist within the range of modern guns, and immediately suggested a Crusading site, resembling such places as Rurhmieh, and Burj Bardawil. Having at last reached it, we could at first find nothing but quite modern ruined hovels, and a quarry with two tombs. Closer inspection, however, showed some small stones with a broad shallow marginal draft, and one well dressed seven feet long, also drafted. The remains of a column built of several pieces one above the other, and of a rocky scarp, the foundation apparently of a small tower to which a flight of rock-cut steps led up, next confirmed my opinion, and, finally, a Maltese cross cut on a broken stone, and well finished, was visible, built into a modern mill aqueduct in the valley below. Putting together these slight indications, there can, I imagine, be no reason to doubt that a small Crusading castle or fortress was here hidden amongst the hills on an almost impregnable site. The head-quarters no doubt would be in the large station of Athlit, which was visible through the mouth of the wady below.

*Geology.*—The geology continues to possess some points of interest, and it is satisfactory to find the new facts agree with former deductions on the subject. The sea-wall, or low ridge dividing the plain from the shore, is a curious and interesting feature. To trace the dip of the strata is almost impossible, as the quarrying has so changed the features of the hills as to render their original form almost untraceable. The rock is a compact sandy limestone, in which, however, the sand generally predominates so much, that it might, perhaps, be called a cretaceous sandstone. The strata, or laminae, are very thin, and evidently formed at the bottom of the sea, near shore, where the sand would be constantly changing its slope, so that, as at present observed, no two laminae appear to be parallel.

The upheaval of Carmel is now traced on every side, and the dip measured in two or three places. The underlying dolomite is tilted upwards towards the main ridge, and disappears on the south beneath the softer thickly-bedded strata; these are of varying consistency, some

being hard and crystalline, but less compact than the dolomite. At one point I observed a curious vein of hard brown crystalline stone, running through the soft.

We have been fortunate in finding quite a nest of fossils on one hill top (principally gasteropods). On the road to Carmel I picked up an Ammonite; and farther south, in some dark stone are a number of bivalves. A fossil limpet, and some large kind of (?) peeten, with a broken portion resembling Gomphoceras (one of the Ammonitidæ), are also added to our collection, and generally the rock appears near the coast to be much fuller of animal remains than inland.

By far the most interesting geological feature is, however, the unexpected discovery of a basaltic outbreak, an irregular crater some five hundred yards broad, in the neighbourhood of Ikzim. It is the largest I have yet seen in the country, and close to the reported mines, which we have not yet visited, but which may prove to be a lode of copper.

The largest cave I have yet seen, apparently natural, though, perhaps, formed not by water, but by the action of pent-up gases, as suggested in other instances by Dr. Tristram, exists just north of us. I followed it to the end with a candle, and found it some twenty feet broad and high, three hundred feet long, and full of huge bats, whose rushing wings could be heard in the darkness. It contains a few stalagmites of moderate size.

*Natural History.*—The present season shows Palestine to the greatest advantage of any in the year. The plains are covered with bright green, and the dark wilderness on the hills is lit up with flowers. Of these the commonest are the red anemone, like an English poppy, and the delicate pink phlox. The rock roses, white and yellow, with a few pink ones, the cytiens in one or two places covering the hill-side with golden flowers, the pink convolvulus, marigold, wild geranium, and red tulip, are also plentiful, and several species of orchis, the asphodel, the wild garlic, mignonette, salvia, pimpernel, and white or pink cyclamen, with may in full glory, may be added to the list.

Animal life is becoming active again; at Athlit we obtained gigantic ants. The beautiful mahogany-coloured rhinoceros beetle, the venerable scarabæi, and great numbers of flower beetles, of various species, are very common. The butterflies are new, including the orange tip (*Anthocaris Cardaminsis*), the Apollo, and two species of large sulphurs, one of which I have not yet been able to obtain. The great swallow-tails, newly born, are confined to the hill tops, and the red admiral (*Vanessa Urticae*) is less rare.

Amongst the birds the greater spotted cuckoo and a few quails are the only new arrivals. The last storm at Haifa in February brought great shoals of fish into the bay, and the gulls and a number of petrel followed them. As soon as the sea was quiet once more the sands were found covered with perfect specimens of sea shells, of which I obtained a small collection, including a beautiful little crimson peeten, and some specimens of Trochus; none but broken specimens had been observable before the storm.





## XIII.

## JERUSALEM AND EL MIDYEH.

P.E.F. CAMP, MUKHALID, *2nd May, 1873.*

FOLLOWING the suggestion lately received from a member of the Committee, I shall in future divide the report of work done from the subjects of general interest included in my letters, and place it first, to allow those who have no time to spare to follow our proceedings without being obliged to read more than the first paragraph.

When last I wrote we had again started field work, and were advancing south; we have, since leaving Jeba, camped at Kannir and Zayta, and shall in a few days break up our camp at Mukhalid, and retire into the hills, having added upwards of 360 square miles, with a monthly average of rather over 170. The triangulation is still large and well shaped, and we have been very fortunate in finding a fine point in the plain, on the top of a high tower in the town of Kakun, and a second almost as good at Kalensawyeh, farther south. In addition to a great number of notes, sketches, and sketch plans now added to my book, the following large-scale plans and surveys have been executed.

## ATHLIT :—

- Survey of the enceinte of Athlit, scale 24in. to 1 mile.
- Plans of three large vaults below the town.
- Plan and proposed restoration of the church, sketches of detail.
- Plan of a large tomb (possibly Phœnician) near Athlit.

## CESAREA :—

- Survey of the mediæval town of Cesarea, scale 50in. to 1 mile.
- Survey of the Roman enceinte at Cesarea, scale 6in. to 1 mile.
- Plan and section of the remains of the cathedral.
- Sketch plan of the theatre south of the town.
- Sections of the two aqueducts, as laid down on the map.

## MIAMAS :—

- Plan of the Roman theatre at Miamas.
- Plan of a vaulted building on hill above Miamas.

## KALENSAWYEH :—

- Plan, sections, and sketches of Crusading Hall at Kalensawyeh.

Numerous sketches and notes were also taken at Tantûra. The site of a Roman town, remains seemingly of a small temple, and a lintel with rough bas-reliefs of lions, were found at Khirbet Semmakah, on the side of Carmel, and it is supposed by Dr. Chaplin to be the site of Ecbatana, afterwards called Carmel by Pliny (*Nat. Hist.* v. 19), where, according to Lightfoot, Vespasian erected the oracle of the God Carmel; it occupies a very strong site, and a great number of oil presses are found near it.

Two inscriptions have also turned up. The first is old Hebrew, found by Corporal Armstrong and myself at Umm el Zaynat on Carmel, over a tomb now choked with rubbish. The rock is too rough to admit of a squeeze being taken, and the letters could hardly be traced, being cut

roughly and painted red, surrounded with a red border. The second was on a stone which had formed part of a tomb near the village of Belah, and was in Greek, *εἰς θεὸς μὶνος* (to the one God) being distinctly visible and a date which Mr. Drake puts at 332 A.D.

In the neighbourhood of Mukhalid we find a Saracenic khan, and a group of fourteen rock-cut tombs, with loculi of various kinds; one is well cemented, and remains of ornament in red paint, circles, leaves, and lines are visible; another has a circle intersected with a cross cut in front of its entrance. There is also a very curious well, 40ft. to 50ft. deep, and perhaps 15ft. diameter, sunk in the sandstone north of the camp.

In geology I may add that we have obtained fossils which will serve to fix the period at which the upheaval of the shore line, as now observable, took place, and that we have traced the volcanic centre at Ikzim, which proves much larger than at first suspected.

In accordance with the wishes of the Committee I have visited El Midyeh, and obtained a survey of the place and a plan of the principal tomb.

Having arranged the triangulation from the Zayta Camp, I was able to spare a few days to go up to Jerusalem for the Greek Easter, and in order to look after the interests of the Fund in the city itself, returning by El Midyeh, and in time to direct the trigonometrical observations from the present camp at Mukhalid.

The talk of Jerusalem, and of the travellers then crowding in and around it, was the great Shapira collection. Since last I wrote on this subject many important events have occurred. The collection has struggled through the first stage of disrepute and incredulity, and the German *savans* have distinguished this valuable and unique series from the clumsy forgeries so common in Palestine, ranking it with the Moabite Stone and with the Hamath Inscriptions. The expedition of Pastor Weser resulted in a great meeting of the Oriental Society, who elected him a member. The famous names of Hitzig and Rödiger are now arrayed with that of Schlottman in defence of the genuineness of the pottery. Mr. Shapira has received the official position of an agent for the Prussian Government, and his first series of 911 pieces has just been bought by the Emperor himself, at a price, I believe, of over £1,000.

These events had all taken place previous to my last visit, and I could not fairly ask Mr. Shapira to allow me to copy such pieces as were already German property without permission from the owners. Fortunately, however, he has since been able to lay the foundation of a second collection, containing already over 250 pieces, of a character, if possible, more curious than those formerly found, and daily almost growing in numbers. Some of these he brought back from Moab himself during his recent visit in company with Dr. Chaplin, and as they are as yet unsold, and as he is free to sell them to any one he thinks best, he courteously allowed me to take the first sketches of the new objects, of which I copied as many as time would allow, and now hasten to send them home to the Fund.

The most remarkable of these is a great "teraph" of black pottery, 42in. long, with horns and a beard of a semi-Egyptian type, with a fine Phœnician inscription on the "stump" in front, and a second incised behind. The former contains seven lines, the latter ten. The pottery, which at first sight looks like painted wood, is of one colour throughout, the figure being hollow; it has a very curious ochre-coloured decay, which I have tried to represent roughly. The figure was broken in many places, and has been not over-correctly mended with glue.

Most of the new pieces come from new fields of research, with the Arabic names of which I will not trust myself. Those coming from one place bear a sort of family resemblance, though of the 1,100 pieces now collected scarcely one is a facsimile of another. The large goddess with a double inscription (also a terminal figure), and with seven horns, is not dissimilar to a smaller one with seven lines of inscription, and also with horns nine in number. The following, out of the fifteen objects I send home, are of most interest, next to these large figures: First, a teraph, with the two letters Yod, Wou, which if they turn out to be a form of the sacred name *Jehovah*, will be of highest interest; in this, with the exception perhaps of the calf and calf-headed deities, we find the first indication of the worship of *Jehovah* by surrounding nations, to whom, as we see clearly from the Moabite Stone, he was but the "tribe god" of the Jews, the husband of Asherah, and third in the triad with Baal and Ashtoreth, a view already learnedly supported by Lenormant in his "Lettres Assyriologiques."

The second is a sort of "Phoenix," or bird-bodied figure with human horned head; on the neck are seven successive marks, on the breast are five letters incised. The reading of this inscription will perhaps give a clue to the symbolism of the numerous bird-forms in the collection, and I may venture to suggest a connection with the attribute of *eternity* which we find in such deities as Hobal and Bel the ancient, the Phoenix being itself an emblem of the same.

A third is a head similar to one already sent home, with a protruding tongue, which, in accordance with the descriptions of Herodotus and of St. Jerome, we may venture to consider as a representation of Baal Peor, the Priapus of Midian.

The inscription round the base of a fourth, also a horned deity marked with the seven stars, will, it is thought, throw light on the two initials *Ain*, *Aleph*, continually occurring at the beginning and at the end of the inscriptions.

A fifth seems to be the first representation of a god of the character of the classical Pan, with a tail and short goats' horns, the legs being, however, unfortunately broken and lost.

Finally, not least interesting is No. 200, a globular vessel pierced with eight large holes, and with seven arranged in an angular form, of which five are smaller. An inscription runs round this nondescript production, and above are symbols including sword, spear, bow and arrows, a shield and two stars, with another emblem very similar to a pair of spectacles.

One fine jar I was obliged to leave, and did so all the more willingly since Mr. Drake will very probably find time to sketch it, and to make an accurate copy of the inscription.

Of the old collection there are but few important specimens not already sent to the Fund. The large figure of a goddess, with an inscription translated by Schlottman, has not, however, been copied, and is now German property, as well as one very curious figure conjectured to be a representation of Charon. The head has an unusually long nose, in each hand the demon holds a human mask, behind the trunk is what one might take for a boat, and in front are two thin legs of disproportionate length resembling oars. The figure is small, and, in common with the majority of the minor pieces, it has no inscription.

Such was the condition of the Shapira collection at the time of my leaving Jerusalem. It is to be hoped that the American expedition, now already in the neighbourhood of Heshban, will succeed in bringing fresh treasures to light.

The time of year and the late fall of the winter rains prevented my visiting, as I had hoped, the passages of the Haram, but other explorations within its precincts were facilitated by the repairs now going on within the Kubbet es Sakhrâh itself. I was enabled in consequence of scaffolding placed over the holy rock, to assist Mr. Schick in accurate measurements of its surface, which will correct and supplement my former sketch. I was also able to ascend into the interior of the drum, and examine the pillars for correction of my former sketches. The cornice, with an Arabic inscription, which runs immediately below the great mosaics, I was most anxious to examine, since both Mr. Fergusson and the Count de Vogüé agree that the latter are of Christian origin. I was, however, able to determine that the cornice was *structural*, and bonded into the building, and not merely a subsequent addition.

In the south-east corner of the Haram my attention was further called to the existence of a regular apse on the east side of the Mosque el Aksâh; the centre has been broken away, but the commencement of the wall on either side is distinctly visible, and is marked on the Ordnance Survey. The curve of the cornice above is even better marked, and on reference to De Vogüé's plan I see that the apse is dotted in. This removes one of the great objections to the notion that El Aksâh was formerly a Christian church.

We examined carefully what looked at first sight like foundations, on the platform supported by the stables of Solomon; they, however, proved in every case to be merely flagstones some eight inches thick, and there can be little doubt that these vaults are far too weak ever to have supported a structure of any weight above. The piers are, as is well known, composed of large stones drafted on one side, and evidently originally belonging to the external wall; as regards the date of the arches they support, Dr. Chaplin has lately made the valuable discovery that masons' marks identical with some used in the Muristan are also to be found on the haunch stones in the south-east corner of the Haram.

A further detail not marked on the Ordnance Survey is observable opposite the supposed springing of an arch outside the eastern wall. It is a little chamber now almost built up in the thickness of the wall.\* The north side of this opening is made of large and very well-dressed ashlar, and rests immediately on the foundation of huge and undressed stones, of which two courses are visible all along the eastern wall of the stable. This recess or opening is shown as a double window by De Vogüé, but must subsequently have been walled up, as it is now only visible through a narrow opening. A very large stone with a semi-column attached, measuring 6ft. in length and 4in. in breadth, the diameter of the column being 3ft. 4in., now lies on the floor. This very probably formed a central pier to the opening.

In Captain Wilson's account of Mr. Schick's late discoveries in the Haram the examination of the Kubbet el Khidr is enumerated. Here, however, I can claim priority, as in October last I was able to enter and examine this mosque. The fact of the floor being of rock is extremely doubtful, but immediately outside the door the rock unquestionably does appear at a level 2438.5 according to my last and most accurate measurement. At or about this level it will be found to be marked together with several other new rock levels in the plate which I sent home to accompany my October report. This level being two or three feet above that of the floor of the Kubbet el Khidr is more important for antiquarian purposes than that of the floor itself, if it should indeed prove on trial with a chisel to be the live rock also.

One of the most important points as yet not fully explored is the No. 29 Tank measured by Captain Warren, and supposed by Mr. Fergusson to contain remains of the Basilica of Constantine. On this subject I may be allowed one important remark after careful study of the appearance of the ground. It is simply *impossible* that the arch of this vault can run at the same level more than a few feet beyond the point to which Captain Warren traced it on the east, for the plain reason that the crown is but 2ft. below the level of the surface, and that on the east the ground falls upwards of 10ft. before reaching the north-east corner of the platform. Thus 8ft., or nearly the whole of the arch of the vault, would be visible at this point, were the vault continued in the same line.

Another important point indicated to me by Mr. Schick was the probable connection between the cisterns Nos. 34, and 2 on the platform, and that group on a lower level known as Nos. 12, 13, and 14. The line between No. 34 and the north side of No. 14 shows indications of two shafts now filled in, and of the top of an arch of small masonry no doubt covering a vault.

Mr. Schick's kind exertions further enabled me to investigate the whole length of the very extraordinary passage leading obliquely from the south-west corner of the twin pools of the Convent of the Sisters of Zion. It was first explored by Captain Warren, but after floating on liquid

\* This chamber is described in Notes to Ordnance Survey, page 33.

manure for some considerable time he found the roof too low to allow of his proceeding to the end. It has since been cleared by order of Joseph Effendi, Lord Mayor of Jerusalem. At the time of our visit it had but a few feet of water in it, and we were able to traverse its entire extent on planks.

The twin pools, now full of water to the crown of the arch, are below that level rock-cut on the east and west; they are reached by a staircase and by rock-cut steps from the street near the Ecce Homo arch. On the south side a rocky scarp rises above the crown of the arch, and over the street to a height about 2,456ft. above sea level; the rock from this point slopes gradually southward, and its height on the south side within the Haram is about the same on the north, but only 2,434ft. where it last appears (at a window on the west wall) above the level of the surface of the interior

The abrupt eastern termination of this great block, standing upwards of 30ft. over the Haram courts at the north-west corner, is distinctly visible on the interior, but its extent on the west is not as yet known. It is through this that the narrow passage, of which a plan is given in the *Quarterly* for April, 1872, is cut. It runs nearly straight till opposite the window already mentioned, which is at a distance of 100ft. from the north-west corner, and on the west Haram wall. At the commencement the passage, which averages some 4ft. in width, is 20ft. high, and entirely cut in rock, through which the rain water from the surface percolated. The roof is formed by huge flat slabs placed from rock to rock, in the sides are passages or weepers to facilitate the collection of the water, and in the bottom a small water channel, not occupying the whole width of the passage, is visible. At about a quarter of the whole length from the entrance a dam 9ft. high is placed, resembling exactly the two dams in the reservoirs planned by me at Seffuryeh; it has a hole below, through which the water could be let out as required. From the farther end, where the total height of the passage is only some 7ft. or 8ft., it runs on at an angle and reaches the west Haram wall at a level 22ft. below the interior surface; this part is built in small masonry, and only the lower part is of rock; the flat slabs are still visible above, and from the wall springs a nicely finished arch of small stones; the channel is evidently (as at present built) later than the wall, and ends suddenly. The true original direction of that part which is rock-cut it is impossible to determine, as it stops abruptly before reaching the wall.

The examination of the Haram wall at this point is of considerable interest, for judging from the height of the rock in the passage there can be but few courses below those visible, and these have every appearance of remaining *in situ*. The stones are 4ft. 6in. high, well finished, and tolerably well preserved, with a draft 3in. wide at the side, and 6in. above and below: the reason of this difference being that each course, as far as one can judge from only seeing two joints, was set back 3in. or 4in. from the one immediately below it. The same feature was observed by Captain Warren in his excavations near the north-east corner of the Haram at about a corresponding level.

Just before reaching the turn in the passage, and opposite the window in the Haram wall, a way has been broken through at right angles to the passage, and the chamber in which the window is can be reached through the floor.

This point is also one of great interest, as the wall is again visible. The south side of the great scarp is here traceable from the Haram wall to the passage, and forms the north side of the chamber. The Haram wall here about the level of the interior is of masonry similar to that already mentioned, and the courses are stepped back in the same way.

But at the level of the ground on the interior the wall is made thinner by a bevelled set-back, leaving two buttresses 4ft. 9in. thick at intervals of 8ft. 9in. This arrangement has been observed at Hebron, and in the remains east of the Church of Holy Sepulchre, but has never before been found in the Haram. The courses of the buttress are all flush. The lintel of the window is one large block, resting on the south side on the courses of the wall, and on the north side on the rock of the scarp.

I was also able before leaving Jerusalem to obtain from Herr Schick the long-promised plate of rock levels throughout Jerusalem. It shows the exact position and depth below the surface of the rock in upwards of one hundred and fifty new places. Combining this with Captain Warren's careful observations, I shall be able to produce a ground-plan of the natural site of the city, which will form perhaps one of the most important set of data for the study of the ancient topography which we can hope to obtain. It must not be forgotten that to Mr. Schick belongs the credit of this most useful and necessary basis for future exploration.

Leaving Jerusalem once more, in the company of Dr. Chaplin, we proceeded by Upper Bethhoron to El Midyeh, of which, in compliance with the Committee's directions, I send a short account with a 6in. survey of the site and a plan of the tomb.

In the January *Quarterly* for 1870 will be found (p. 245) an account of the place by Dr. Sandreczki, who first identified it with Modin, and the curious building with the seven sepulchres erected by Simon Maccabeus for himself, his parents, and his four brothers (1 Macc. xiii. 27; Antiq. xiii. 6). The requisites of the two accounts are, a view to the sea, seven tombs "one against another" with surmounting pyramids and a cloister surrounding them. These, as he points out, are all fulfilled at El Midyeh. My sketch will show how the sea, and the long line of sandhills, with the olive groves of Ramleh, and the white minaret of Lydd, are visible above the line of lower hills immediately west of the spot.

A further account of explorations carried on in that year by M. Victor Guerin will be found in the June number of the *Quarterly* for 1870. After clearing the *débris* the tomb was opened, and, as we were informed by the inhabitants, bones and other treasures, including perhaps the tessellated pavement which formed the flooring of the chamber, were carried away to Jerusalem.

The condition in which the monument was left in consequence of these excavations was not over favourable for subsequent examination.

#### EL MIDYEH.

This is a large Arab village, standing on a hill, and defended on the north, south, and west by a deep valley. Immediately south of the present town is a round eminence with steep and regularly sloping sides, suggesting immediately an ancient site, but showing nothing in the way of ruins except a few stone heaps amongst the olives which cover its summit. The ground on the west side of the deep wady, which has the modern name Wady Muláki, is, however, much higher, and closes in the view of the sea. It is here, about half a mile west of the village, that the Kabur el Yahud, or "Tombs of the Jews," were found, close to a modern white tomb house, with a spreading tree beside it, the resting-place of Shaykh Gharbawi Abu Subhha: My survey and plans give the necessary details, and I will only add a few observations to explain them. The sepulchres, which are fast disappearing, seem to have been seven in number, probably all of one size, lying approximately east and west, and enclosed by one wall about five feet thick. This is well preserved on the east and west, but has disappeared—or was removed by M. Guérin—on the north and south. Of the walls of partition, however, only one can be well traced, consisting of stones well dressed, laid with continuous horizontal and irregularly broken vertical joints, without any trace of drafting, and varying from 2ft. to 5ft. in length, their other dimensions being about 2ft.

The most northern is the only one of the chambers which is sufficiently preserved for examination, and differs entirely from any sepulchral or other monument I have as yet seen in the country. It consists of a chamber open on the north, nearly 8ft. high, 6ft. from east to west, and 5ft. from north to south. Its only remarkable feature is a cornice the profile of which is a quarter circle, which is evidently intended to support a greater overlying weight than that of the flat slabs some 6ft. long which roof the chamber in. The floor was also of flags supported by a narrow ledge on all sides; these having been removed, the tomb itself could be seen below, a square vault of equal size with the chamber, and apparently 3ft. 6in. deep, though the *débris* which had filled it on one side may have prevented my sinking down to the floor itself.

The pyramid which once surmounted each of these chambers has entirely disappeared; its only traces were the supporting cornice on the interior, and the sunk centre of the upper side of the roofing-slabs, which were raised about 6in. round their edge for a breadth of 1ft. to 1ft. 6in. The base of the pyramid must have been a square of 8ft. or 9ft. wide (it is not possible to determine it exactly), and the height would therefore probably have been 15ft., or at most 20ft. Of the mosaic pavement to the tomb, and of the ornaments of its walls, I was not able to find a single trace.

The surrounding cloister has also been destroyed, but on the north and west a few courses of a well-built wall were visible in parts, parallel to the sides of the tomb, about 20 paces from its outer wall. Within this enclosure was a choked-up cistern, and without, farther down the hill, a rough cave 22 paces by 14, used as a cattle stable, and full of soft mud.

Immediately north of the tomb are remains of later buildings of small rough masonry with pointed arches. They are ruined houses according to the account of natives of the spot.

The name Khirbet Midyeh will be found on the map as applying to a set of rock-cut tombs about a quarter of a mile south of the Shaykh, and these are described by Dr. Sandreczki at some length. They are separated by a slight depression from the "Kabur el Yahud," and between the two, as shown in my Gin. survey, there is a well and a couple of ruined and broken cisterns. The Doctor enumerates about twenty-four tombs; of these I observed twenty-one, and a large one with two entrances, twenty-three in all. It is possible I may have missed or forgotten to show one. The tombs resemble exactly those formerly described in the large cemetery at Ikzal, but are smaller. They consist of square chambers sunk about six feet in the flat surface of the rock, with a loculus parallel to the length of the shaft on each side, cut back under a flat arch, as shown in the sketch. A large block of stone closes the tomb above; all had, however, been pushed slightly to one side, leaving the interior, which in one case was occupied by the body of a poor native woman but lately placed there, distinctly visible. At first I imagined that they all pointed east and west, but one it will be noticed is at right angles to this direction. Nine of them are placed in one roughly-straight line, and four others parallel. They were all very small. The loculi cannot be more than 5ft. 6in. long, and the stones above are not much over 6ft. 6in.

As continually happens, a tomb of another class exists in the immediate neighbourhood. South of the nine tombs the rock is scarped perpendicularly to a height of 5ft. for over 30 paces, and on the west a square chamber with rock scarps on three sides six paces in length is thus formed. It was probably once roofed over, but no traces of masonry remain; it is filled with rubbish, and on the north and west the tops of two small entrances to chambers are visible; I could not, however, find any corresponding door on the south. A chamber of this kind exists in two or three places near Haifa, where the side entrances lead to tombs with loculi perpendicular in direction to the walls. Similar loculi occur at El Tireh, in connection with tombs *sunk* like the majority of those at El Midyeh. In fact the mixture of three or more classes of tombs in one cemetery is common throughout the country, and the chambers in question, if once the *débris* were removed (which would hardly repay the trouble), would very probably prove to have the Jewish loculus.

The wine-press mentioned in the former Report I visited and measured; it is not equal to other specimens I have copied. East of the

cemetery the rock is much quarried, and there are a few sunken square places resembling unfinished cisterns, or the commencement of a system of new tombs.

There is not, as far as I am aware, any other feature of interest to mention at El Midych.

Some account of the ruins at Khirbet Semmakah, the only place on Carmel where remains of any importance exist, will no doubt prove interesting, especially if, as already discussed, it seem likely to be the site of Ecbatana or Carmel.

The statement of Lightfoot is not, however, received by Dr. Thomson, who quotes Tacitus ("History of Vespasian," p. 410) to show that the God Carmel was worshipped without a temple, in the open air, on the top of the mountain, and probably at El Mahrakah, the place of Elijah's sacrifice.

That Khirbet Semmakah is the site of a town, and to all appearance of a Roman town, there can be but little doubt. After wading through the almost impassable brushwood which lies on the lower slopes of Carmel, we came upon a small plain or broad valley with a gently sloping hill at its northern boundary, whilst on the east and west the sides were steeper, and impenetrable for horse and man.

The ruins lie scattered over an extent of rather less than a quarter of a mile, principally on the sides of the hill, and but few were found on the top. On the northern side a very deep and precipitous ravine, in which the vultures, crows, and hawks were wheeling slowly, closes in the site, and renders it impregnable in that direction. The name is Wady Nahel.

The principal remains are those of what would seem to be a small temple, having a bearing of 87°. Only the lower courses of the eastern wall, and two pillar bases 2ft. 3in. diameter, are left. The doorway, which is slightly north of the northern pillar, was 5ft. 3in. wide, and surmounted with a lintel with simple mouldings. This had fallen within the building, and the upper part of the jambs with corresponding mouldings had also disappeared. The stones of the wall were ornamented with drafts, one being 5ft. in length, and so cut as to appear like two stones with the centres raised, and drafts 3in. broad and about 1in. deep. Other drafts were 7in. broad and 1½in. deep. The faces of the stones were in all cases dressed, but the deeper drafted ones were rough.

Immediately east of the temple the town wall, or some similar structure, was traceable for about 50 yards, and consisted of small well-cut stones, about 1ft. long and 6in. high; several other walls joined on to this at right angles, and on one of these, close to the temple, was a stone seeming to have been originally a lintel, but now placed in the wall. It was 7ft. long, 3ft. high, and ornamented with a tablet on which in bas-relief were two lions roughly executed facing one another, and with a cup placed between their paws. A second smaller cup was cut above the left-hand lion's back. The whole of the masonry, though small, was

well dressed, and far superior to modern Arabic workmanship. Unless, indeed, which is unlikely on account of the bas-relief, they should be Jewish, there is no date but that of the Roman occupation to which to ascribe these ruins.

Continuing our search we found a well within the town wall, and a cave without. At the south-west corner of the hill is a strong corner foundation, which seems to belong also to the outer wall, and farther north the ground is strewn with broken stones and fragments. A very low valley here separates the ground and runs south, on the east of its course, and directly north of the temple two caves appear, one possibly a rough tomb. To the west also there are several remains. These include a fine beehive cistern, about 30ft. diameter, foundations of good-sized and well-proportioned stones, and a large sarcophagus lying on the flat rock, 8ft. in length, and with a flat lid beside it.

Still farther west is a smooth platform of rock, in which a square birket, 10ft. side, and a well now partly choked, 3ft. diameter, are found.

The most characteristic feature, however, remains to mention. In every direction one finds foundations of little buildings about 20ft. square, near which lie one or more (generally a pair) of rollers, cut out of soft limestone; they are 7ft. long and 3ft. diameter, and have grooves sometimes running the entire length, but generally arranged in four lines parallel to the length of the pillar, with four or five grooves in a line. Of these I counted upwards of a dozen. They are supposed by Mr. Drake to be rollers, moved by handspikes, and placed end to end in the buildings, which he takes to be oil mills.

It is needless to add that I made a rough special survey of the place, and plans and measurements where required.

A doorway, similar in some respects to that of the temple, we found afterwards at Khirbet Baydus, south of Kannir; but in this case lintel, jambs, and seemingly the groundsill, were all cut out of one piece of very hard creamy limestone with fossils. No other ruins of the same date, except a pillar stump, a rough cave, and some blocks of a wall, existed near it. There were, however, ruins of more modern character.

In concluding this report I wish to say a few words as to the geology of central Palestine, the thorough tracing of the centre of basaltic eruption at Ikzim having explained a great deal which must formerly have been puzzling.

In Report VII. I spoke of the formation of the great Plain as due to volcanic action and subsequent denudation, and of the low synclinal dipping upwards to the basaltic centres at Shaykh Iskander and on the Gilboa range. The subsequent discoveries confirmed this statement, but it was not till after leaving Jeba that I was able to grasp the whole geological formation of the country. The sudden upheaval of Carmel, with its abrupt sea and land ends, must strike all observers as requiring explanation, as well as the low, flat character of the range forming the western boundary of the great Plain, between the peak of Elijah's sacrifice and the cone at Wely Iskander's tomb.

The Ikzim centre explains all this. The low ridge just mentioned, of soft limestone with flints, with a yet softer marl below, dipping gently down towards the Maritime Plain, and known by the modern name of "Belad el Ruhah," presents the natural surface of the country. On the south this is broken by the outburst of basalt and other trappean eruptive rocks at Shaykh Iskander, which, in their attempt to escape, have tilted the strata at an angle of upwards of 30 degrees, and have brought to light the underlying dolomite, from above which the softer formations are now washed off by subaerial denudations. On the north-west the Ikzim outbreak has entirely broken up and altered the surface of the country, and finally the appearance of a trappean outbreak near Umm el Zaynat, and of a large cavern, perhaps formed by pent-up gases, on the slope of Carmel, together with its steep sides and the direction of the dips, leads one inevitably to the conclusion that the great elevation of the range is due to the violent internal action of igneous matter, unable to find more than a very partial outlet for escape. The dolomitic rocks and the fossiliferous limestones of Carmel are at a higher level, but of an older formation than the soft marls of the "Belad el Ruhah," and thus it appears as though the effect produced on the part where no escape was possible was far greater than where, as at Ikzim, the basalt found an easy outlet.

On leaving this centre to the north the plain of Sharon suddenly widens to a more than double breadth, and the gradual slope of the hills contrasts markedly with the inland cliffs north of the Zerka. We now approach again the Judæan range, which is said generally to present a low anticlinal, an assertion which it requires numerous and careful observations to prove.

Another point of great geological interest is the date of the upheaval of the shore line, and on this also we shall now be able to throw light, in consequence of a valuable find of fossils at Khirbet Dustray, near Athlît, on the curious *sea-wall* or line of low inland cliffs of sandy limestone, in which, as explained in my last report, the tombs and quarries are so constantly found.

Advancing south of the Zerka we find this line to run gradually farther inland with the widening plain, and after passing Cesarea a second line of cliffs begins to rise close to the beach, attaining a height of 200ft. near Mukhalid, and running on continuously to Jaffa. Thus it seems as though two succeeding periods of upheaval might be expected, giving shore lines some four or five miles apart. It appears also that this upheaval has a very gradual dip upwards towards the south, but further observations near Acca will be necessary before advancing any theory on the subject.

From such a study of geology in a country so interesting as is Palestine, one is led to the conclusion that volcanic action throughout its whole extent from Dan to Beersheba, must have been very violent and continual, and I look forward with great eagerness to the thorough examination of the Ghor, which may perhaps prove to owe its formation

neither to a fault nor to glacial or fluvial action, but to a sudden volcanic convulsion not impossibly at a late geological date, which one cannot but connect in one's own mind with the overthrow of Sodom and Gomorrah.

CLAUDE R. CONDER, Lieut. R.E.,  
*Commanding Survey Party.*

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## MR. C. F. TYRWHITT DRAKE'S REPORTS.

### XIII.

CAMP JEBA, *March 12, 1873.*

OUR present camp is pitched at the foot of the western slopes of Carmel, some three miles south-east of Athlit. The ruins of this place seem wholly Crusading, and I shall forward an account of them as soon as we have examined them. A remarkable natural feature is observable near the coast; commencing in sand dunes about three miles south-west of Carmel convent a ridge runs parallel to the mountain of that name, gradually increasing in regularity and in hardness of rock, till, between Athlit and Tantúrah, it assumes the form of a rocky ridge 40 to 50 feet high, and some 300 yards broad. The stone is a soft crystalline limestone, almost resembling a sandstone. Between these two last-named villages is a plain stretching westwards from this seawall to the sea, and protected from inroads by the peculiar manner in which the former has been quarried. For many miles the whole surface of this ridge has been cut and quarried to a depth of from six to ten feet. In many places a narrow ridge or crest has been left on the summit, thus forming a wall of living stone. Passages have in several places been cut through the ridge, and show traces of having been closed by gates. Rock-cut tombs, as described by Lieut. Conder, are numerous in these quarries, and must, I imagine, be ascribed to the early centuries of the Christian era. Our present state of knowledge, however, with regard to the rock-hewn tombs of Palestine, owing to the almost total absence of inscriptions or any other guides, renders all attempts at fixing the date of these excavations uncertain.

Besides the road passages above mentioned, one water-drain has been also found cut through the rock. In several places, too, we have come across old chariot roads with deep ruts in the rocky surface.

The present village of Tantúrah is situated about half a mile to the south of the ruins of old Dor or Dora. The remains of these ruins—for as usual all the dressed stones have been dug up and carried off—cover an oval mound comprising several acres and adjacent to the sea. The most prominent object is the remains of a tower of Crusading or early Saracenic construction. The part still standing is the north-east

buttress of a square fort on a spit of land running into the sea. A pointed arch gives the clue to its date; part of a well staircase may still be traced. The ashlar stones are about three feet by two feet and one and a half feet thick; mortar, full of cockle shells, layers of rubble, and old Roman bricks, form the interior of the walls. North of this, and supporting the cliffs, are walls of Roman work, formed of stones some four feet by two feet and two feet thick. Foundations as of a kind of wharf still remain at the water's edge. This massive masonry has been lined throughout with a coat of rubble and cement to a thickness of about two feet, for what purpose I am unable to say. Above these substructures, and immediately facing the sea, are the *débris* of a large number of columns two feet ten inches in diameter. The capitals are a kind of Ionic not unfrequent in the Hawran, and of which I have given an example found in the 'Alah in "Unexplored Syria." The volutes are formed on each side by the junction of two cones attached to the capital, an example of which measured four feet four inches by three feet four inches at top. The building to which these columns belonged must have been a conspicuous object from the sea. To the east of the mound is a Roman tank for irrigation, differing from those I formerly described near Jaffa as being built of rather large blocks of stone. Near this are a few gray granite columns. The sea-coast here is fringed with low rocks and indented with little bays which, protected by a few small moles, would still serve, as they doubtless did under the Romans, as harbours for coasting craft.

Throughout all this neighbourhood the rock-tombs above mentioned are much used by the fellahin to stow away the bodies of murdered men who, not having died *en règle*, cannot be buried in a Mohammedan cemetery. In two caves near Sarafend I counted sixteen skulls, near Athlit as many, and frequent solitary cases or groups of two or three are found scattered about. A native of Athlit to whom I first applied for information, said, "Those are the bones of men killed about here," and seemed to think it the most natural thing in the world that if men went along the high road they should come to such an end.

Turning to the pleasanter subject of Mount Carmel we find its steep sides and rugged wadies still covered with a growth of brushwood which shelters the usual wild animals. Many ruins are scattered over the hills, some ancient but many of recent date. Till the advent of Ibrahim Pasha the Druzes were very powerful in Carmel, and owned many villages. All of these, with the exception of 'Asfieh and Dáliyeh—the former half Christian—are now deserted. At a river called Semmákah a large number of columns have been found and will be described on a future occasion.

The weather is peculiarly unsettled and disagreeable, as well as far from healthy. The wind is continually changing, though blowing more from the east than from any other quarter. During the last few days haze and mist have frequently occurred, and there is seemingly every probability of an early and unusually hot summer. The cereals are





well up and barley has been in ear, on the maritime plain, for more than a week.

The following are a few of the identifications of ancient sites which I had begun to work out in our winter quarters at Haifa when sickness prevented their completion. As far as I can ascertain these proposed identifications are new.

יֶתְלָה. *Jethlah* is mentioned (Josh. xix. 42) as a town of Dan, and seemingly in the neighbourhood of Ajalon (the modern *Yalo*). There is no Arabic name that I am aware of which exactly corresponds to the Hebrew, but here the reading of the LXX. Σιλαθά may perhaps help us. If that be correct the modern village of *Shitta*, which lies a little north-west of the lower Beth Horon, may perhaps represent Jethlah.

הֶלְקַת הַצִּרִּים. *Helkath Hazzarim* is mentioned 2 Sam. ii. 16, and is translated in the marginal reading "the field of strong men," and we are told that it was a place in Gibeon, the modern El Jib. Close to this village is a broad smooth valley called Wady el Askar, meaning the "vale of the soldiery," which may not improbably be a reminiscence or translation of the Hebrew name.

The town of *Asher* (Josh. xvii. 7) has been identified with Yasir, but the modern Asirah seems a somewhat more probable identification.

In Josh. xxi. 25, and the other parallel passage, 1 Chron. vi. 70, we find mention of Aner and Bileam in the one, opposed to Tanach and Gath-rimmon in the other.

By some אֲנִי Aner (cf. Dict. Bible, s. v. Aner) is supposed to be a misreading for Tanach, but may, I think, be recognised in the modern village of 'Anim, in which rock-cuttings and other traces of an ancient site are observable.

בִּלְעָם. *Bileam* (1 Chr. vi. 70) is doubtless the same as *Ibleam* (2 Kings ix. 27), which being near the going up to Gur seems to have been beside a well-known road, and in the direction of the "garden house," which is usually taken to be Jenin. The principal road through Palestine now runs up the wady behind Jenin, and here are the ruins of Bel'ameh, which is the same word as Bileam, and the position of which seems also to answer the requirements of the case.

The *Rabbith* of Issachar and *Amad* of Asher, may perhaps be identified with the modern *Arrabeh* and *Unm el 'Anid* respectively, but the notices in the Bible seem too vague for any certain decision to be arrived at.

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#### XIV.

P.E.F. CAMP, KANNIR, March 23, 1873.

EXAMINATION of the ruins of 'Athlit showed us the remains of a Crusading fortress, which in its palmy days must have been equal, if not superior, to anything else of the same period in Palestine proper.

It is now a broken relic, shattered by earthquakes, systematically spoiled and robbed of its stones by the Turkish Government to rebuild Akka; and disfigured by the mud hovels of the fellahin, built over it like the mud nests of the wall bees over Egyptian temples. Abandoned by the Crusaders in 1291, A.D., nearly six centuries of neglect and dilapidation have been unable to destroy the massive walls; whilst the extensive vaults, protected by their situation, are perfectly preserved. To select this as the *castellum peregrinorum*, or landing-place for the pilgrims, was a stroke of policy on the part of the old knights. They well knew the influence of first impressions, and knew the advantage of bringing men—many of whom they hoped would remain under their banners to fight on the sacred soil itself—to a prosperous well-built fortress, situate in a pleasant fertile district, rather than to a point whence the barren nakedness of the central and eastern hills would too soon be brought in view, lighted up by the pitiless glare of an eastern sun. The woodclad steeps of Carmel and her fertile maritime plain would have a homelike look to one coming from mid or southern Europe, and would do much to recommend the spot to pilgrims after long and weary travel by land and sea.

The town of 'Athlit occupies a low rocky promontory, having a small bay both to north and south, which would serve as harbours according to the direction of the wind; that on the north being protected from the south and south-west, and that on the south from the north and north-west. On the land side a wall is carried across the neck of the promontory enclosing some twenty-four acres of land between it and the town. This wall had three gates to the east and one to the south: it was strengthened by a tower at each end at the edge of the sea, and another on a small mound of rock at the south-east angle. A fosse filled from the sea afforded further protection.

The town itself was only entered by one gate to the east, flanked on either side by a large bastion. Before this lay the outer wall and ditch, and behind it the inner fosse, across which lay the main body or keep of the fortress. On the three other sides the town was protected by the sea and a double wall, including that of the keep. The accompanying plan will show at a glance the importance of the place.

The masonry throughout is massive and well constructed; so much so, that parts of it have been mistaken by some travellers for Roman work. There is, however, not the slightest trace of any building anterior to the Crusading period. The walls are generally of great thickness, ranging from 8 to 21 feet: the centre is composed of exceedingly hard rubble, which in many cases now stands alone, having been despoiled of its ashlar. In the outer walls this ashlar or casing is formed of stones 2 feet in depth, and varying from 2 to 5 feet in length, and always drafted: the draft is 3 inches in breadth, the boss rustic, and projecting usually about 4 inches, though in some cases it extends as far as 12 to 14 inches. In one place of the outer wall the

·natives have cut into the stones to obtain the leaden clamps, which they told me were used to fasten the stones together. The inner ashlar is smooth dressed.

We found a series of vaults just within the wall of the keep on the east, south, and west sides. That on the south is 240 feet long, and about 30 feet high; that on the east is divided into several partitions, and has a total length of 264 feet. On the west is a fine groined vault, the bosses at the junction of the ribs being made of four trefoils, growing from the centre. Besides this is a vault 60 by 28 feet: it is cemented inside, and has no proper entrance other than by a man-hole in the roof, though now an entrance has been broken at the west end. Some of the fellahín told me that this was intended as an oil well, but it was more probably intended for water, as its capacity, some 261,000 gallons, would seem to preclude the idea of the former. Beneath the church there is, I was told, another vault, but the entrance to this has for some time been closed.

The most conspicuous fragment now standing is part of the east wall of a large tower, at the north-east of the town, known as El Karnifeh. It is about 70 feet above ground, 16 feet thick, and presents a fine example of the drafted masonry above referred to, on the outside. The rubble is very hard, and bound together by irregular courses of large smooth-dressed stones. The lower part of the inside shows the spring of a barrel-vault, and above this are three corbels, supporting the ribs for a groined roof, made of human heads, one bearded, and of a military aspect, the other with shaven face, and long locks curling at the end. A tower of similar importance and size is said to have stood at the south-west corner of the town, and was known as the *Kasr bint el Melek*, "the castle of the king's daughter." This, however, with the church and other buildings, was first overthrown by the earthquake in 1837, which proved so destructive to Safadh, and thence carried away by sea to Akka, for the repairs of that town, after the departure of Ibrahim Pasha. Before the earthquake the roof was still whole on the church; now its very foundations can only be partially traced. From the measurement and angles of some of the walls, taken by Lieut. Conder, I have tried to restore the building, but it is impossible to feel certain of its accuracy, as one cannot tell how much has been displaced by the earthquake; the force of which is attested by huge masses of masonry rolled down to the sea, and by two windows turned topsy-turvy, with parts of the surrounding walls. The houses of the fellahín and their accompanying daughills, clustered over the spot, add to the difficulties in tracing the outline of the building. A fragment of one capital survives in fair preservation, and of this I send you a sketch. We found one pillar of gray granite 20 feet 2 inches long, and 3 feet 1 inch in diameter; a similar one is said to be buried in the rubbish near by. These may very likely have stood at the west door.

The cornice mentioned by Dr. Porter ("Murray's Guide") has quite

disappeared, but was talked of by some of the village elders. A tradition is extant among these people that El Melek el Dhaber—who, as I have before mentioned, always does duty for any historic king—though able to take Cæsarea by assault, was compelled to besiege 'Athlît for seven years before obtaining possession of it.

There are many traces of European work in the neighbourhood. To the north-east is the detached work of Drestray, containing a tower and stables, the former (now ruined) based on a square rock the sides of which have been quarried away to the depth of several feet; the stables, too, are cut out of the rock, the roof having been formed of masonry. Water was obtained during a siege from a cistern hewn in the rocky base of the main tower and from a well at its edge. The springs of Drestray lie about 200 yards to the north-east. This fort commanded a road cut through the "sea-wall" mentioned in my last report. Either this cutting or the fort itself seem to have been called "*petra incisa*" by the Crusading chroniclers (cf. Murray), and doubtless much information might be gathered from those sources about 'Athlît, though I have not been able to find any notice of it in the few books we have here.

Ruins in Wady Shellateh and at Rushmia on Mount Carmel seem to have been held in connexion with 'Athlît, and a quadrangular fort with towers at the corners, still existing in the neighbouring village of Kefr Lám, may belong to the same date, but is much more probably Saracenic, to judge from the irregular masonry and the small size of the stones.

Other symptoms of European occupation are visible in the ditches to drain the marsh east of the town of 'Athlît, in a rock-cut passage for the same purpose leading into the sea, and in a series of drain-pipes laid in a stone casing, apparently leading from the sea to a marsh called now *El Mellahah*, "the salt marsh." The only object I can imagine for these pipes is to bring sea water for evaporation, as the rocky bed of the present marsh being very near the surface, would, with very little trouble, form an excellent salt farm.

I will conclude my remarks on 'Athlît by stating that a former traveller, notwithstanding the pointed arches, Crusading sculptures, and other unmistakable mediæval remains, has described the ruins as of "*purest Phœnician style!*" A more forcible instance of the necessity of our work could hardly be found than this utterly groundless assertion, for at 'Athlît there is not the slightest trace of any masonry anterior to the Crusades.

Our present camp is situated on the edge of our former work, and not far from Umm el Fahm. The paucity, or rather deficiency, of villages on the maritime plain between Cæsarea and Jaffa, left us no other choice. The plain, however, is good travelling at this time of year, and a large tract can be worked with ease. All around us are extensive woodlands of *Quercus agrifolia*, locally called *mullûl*, which extend from the edge of the Belad el Ruhah to some distance in the plain. A similar forest must have existed within quite recent times a

few miles north-east of Jaffa, as the roots and stumps of the trees are found there still alive. These trees do not often exceed thirty feet in height, as their boughs are frequently cut by the Arabs and fellahín for fuel, and also for the purpose of feeding their goats on the leaves. Beneath the oaks no brushwood is found, but there are a few scattered shrubs, such as the sweet flowered 'abhár (*Styrax officinalis*), with its white blossoms not unlike the orange in colour and smell. The ground is now covered with herbage flecked with brilliant flowers, red, pink, and yellow, the latter colour, however, preponderating.

The plain and lower slopes of the hills are overrun with the flocks and herds of the Turcomans, who, living in the Merj Ibn 'Amir during the summer and autumn, come hither for pasturage during the winter and spring. Though living in tents, they cultivate the soil just like the fellahín, and pay the usual 'ashr, or tithe, to the government.

They have entirely given up the Turkoman language, and now speak nothing but Arabic; several of the local names, however, on Carmel have a decided Perso-Turkish sound, and may perhaps be traced to these men's forefathers. Their mode of life differs in nothing from that of the ordinary Bedawín, but their cast of countenance is frequently Kurdish. They are divided into seven clans (called in Arabic Ashíreh, or Tyfeh) which are as follows:—1. El Tawat-hah. 2. El Biníhah, or Beni Gorra. 3. El 'Awadín. 4. El Shagayzát. 5 and 6. Beni S'aidán and 'Alakineh, these two being under one Shaykh. 7. El Nagnaghíyeh. Near Cæsarea are the camping grounds of the Damalkhah and Mus'aü Bedawín, and south of them are the Nafa'at. In the Wady Hawárit are a few tents belonging to the Emir el Háritneh, whose ancestors once ruled from Tiberias to Cæsarea, and from Akka to Baysan, with a rule of iron. It is probably to a chief of this family that Maundrell ("Early Tr. in Pal.," ed. Bohn. pp. 431, 476) refers by the name of Chibley, who lived at Jenín, and who "eased him in a very courteous manner of some of his coats, which now (the heat both of the climate and season increasing upon them) began to grow not only superfluous, but burdensome."

The tomb of a Moslem *weli*, or saint, named Shibleh, which stands west of Jenín, near Kefr Kúd, is very likely, as suggested to me by Dr. Chaplin, the tomb of this emir, though the fellahín near the spot could tell me nothing of his history.

I may here complete the list of Arab clans in this district by enumerating those in the Merj ibn 'Amir. They are—1. El Kabíyeh. 2. El S'aideh. 3. El Gharayfat. 4. El Zubaydat, and the Mohommaydat, who live on Mount Carmel. The Ghawárineh, "Men of the Ghor," or depression, live on the plain of Akka, and in the marshes of the Zerka, north-east of Cæsarea. The occupation of these last is chiefly pastoral; and partly by admixture of negro blood, partly on account of the great heat to which they are exposed, their skins are of a very dark coffee colour, blacker and less transparent than those of Abyssinians.

*Cæsarea*.—The ancient ruins of this city occupy a large extent of

ground, but there is little of interest to be found; I shall therefore first notice the mediæval and Saracenic remains, and afterwards revert to those of earlier date. The Crusading city occupied a space 600 yards long by 250 yards broad, on the coast almost midway between the walls of the ancient city. The wall which forms the boundary of the more modern town is fortified at intervals with towers, and fronted by a ditch. The masonry differs essentially from that of the outer walls of 'Athlît, though resembling the inner construction of that place, being small and undrafted. Against this outer wall a Saracenic scarp—sloping at an angle of 60 degrees—and a counter scarp on the other side of the ditch, have been built. Immediately on seeing the place, I felt sure that this was the case from the analogy of similar additions in various parts of Syria and Palestine; for example, at the so-called David's Tower, Jerusalem; at Kawkab el Hawa, the Crusader's Belvoir; and at the Castle of Horns. Proofs were soon found to show my surmise correct. In one place the scarp half covered a window with pointed arch and vertical joint in the crown similar to those at 'Athlît, and in the Morostán, Jerusalem. There in several places we saw how the scarp had been added on to the original perpendicular wall, after the latter had been finished and carefully pointed with hard white cement (that in the middle of the wall being softer, earthy, and of a blackish hue). Then, to prove the inner part of undoubted Crusading handiwork, we found ribs of groined arches, in one case supported by a corbel formed of a human head; and if this were not sufficient, the remains of a triple apsed church left no room for doubt. Just within the wall may be traced a covered way, 13 feet in width. Little remains of the upper part of the walls, except one tower to the north, on which we found just sufficient room to set the theodolite and observe, and part of the wall, near the southern gate, which stands close to a well of fine clear water, some 20 feet in depth. This well, which is within the walls, seems to have been supplemented by several aqueducts, which will be described further on. The only examples of drafted stones are to be found in the lower walls of the Kala'ah or south-western tower, which, built on a little promontory, extends for some distance into the sea. Here, in the second and fifth courses from the bottom, large columns of red and grey granite, and of black and grey marble, are built as bands alternately with the drafted stones. Beyond this is a reef with ruined buildings on it, being part of the old mole. A little to the north of this some sixty or seventy perfect and fragmentary columns, varying in length from 20 to 5 feet, have been rolled together to form a kind of rude pier in the shallow water on the reefs. Of the mediæval city itself, nothing remains but the ruins of two small buildings, of which the special use can in no way be designated, and of the church. The whole area is covered with shallow pits, from which the well-preserved stones have been taken to Akka, Jaffa, and other places on the coast. The church has suffered less, both on account of the smallness of its stone and the hard crystalline cement used in its construction.

Earthquakes have, however, done what the pilfering masons of Akka could not do. Masses of the wall lie within its area, and by the utter confusion in which they are thrown attest the force of the shock which laid them low. The apse is triple and semi-circular. An arched recess on the north side of the central apse may have been the archbishop's throne, while the rest of the officiating clergy sat in the opposite sedilia. Traces of white plaster are still to be seen on the inner walls of the body of the church. The pavement is visible in one corner, and is of a white marble, set in cement, over a layer of black earthy mortar. At the west end of the church are four buttresses, 18 feet deep by 6 feet in breadth, and some 50 feet high, with sloping tops. The connection of these with the church is somewhat difficult to make out. Beneath the church, and opening out on to these buttresses, are two vaults, one filled up with *débris* and broken in by fallen masses of wall, the other perfect and 70 feet long.

The Roman remains within the mediæval walls are to be seen on the beach near the north-west corner, where there is a layer of coarse tessellated pavement of white stones, buried beneath some 12 feet of *débris*, chiefly composed of broken pottery mixed with fragments of glass and of bones, most of which have been sawn in two. Farther south a wall may be traced, whose lower courses are built of stone,  $2\frac{1}{2}$  feet square. Farther on is a drain strongly cemented, and about a yard wide; the top is broken in. Near the church and north of it are some courses of large stones. These may, I think, with great probability be taken as the remains of the temple built by Herod to Cæsar and Rome, of which Josephus gives us the following accounts (Antiq. XV., ix. 6, and Wars I., xxi. 7): "Now there were edifices all along the circular haven made of the most polished stone, with a certain elevation whereon was erected a temple that was seen a great way off by those that were sailing for that haven, and had in it two statues, the one of Rome, the other of Cæsar." And again—"Over against the mouth of the haven, upon an elevation, there was a temple for Cæsar, which was excellent both for beauty and largeness." In the previous sentence he mentions the "white stone" of which the edifices were built.

These remains to which I have referred are so placed as to front the harbour, and are the only stones, with the exception of a portion of wall near the water's edge and now covered with 15 feet of *débris*, which we saw of white limestone. All the masonry of the Crusaders and Saracens, as well as the scattered stones in the outer area, are of cretaceous sandstone. I enclose a sketch to show the character of the masonry: the niches, whose tops are visible, were probably for the reception of statues. A draft and boss appear on some of the stones, which are, however, too much weathered to allow of measurement. I found traces of a similar wall running eastwards from this which is therefore presumably part of the façade. A series of narrow vaults (now broken in) of uncertain date extend between this building and the church, which lies to the south.

The account given by Josephus of the construction of the harbour has been called in question by many. He states that a mole was run out to protect the ships from the south-westerly gales, and that its foundations were sunk in twenty fathoms' water, and composed of stones fifty feet long, by eighteen broad and nine deep. Here we must recollect that Josephus could never have seen these huge blocks, and his information must have been derived from hearsay. Still, the size is not utterly improbable when we still find a quadrangular column of red granite 34 feet long by 5 feet wide, and more than 4 feet 6 inches deep, situated half a mile from the sea. The very numerous columns of granite and marble show that no expense can have been spared in the construction and ornamentation of the city.

The mole is described as 200 feet wide, and composed half of the *procymatia* or breakwater, and half by the quay and vaults in which the sailors lodged. The reef of rocks running westward from the Kala'ah, though robbed of nearly all its hewn stones, still retains traces of walls and answers well enough in size to this description. Here, too, may be seen traces of tessellated pavement formed of rough two-inch cubes, such as one would expect to be used out of doors, and with these the quay was very likely paved. In one place there are two layers of these cubes, as though one pavement had been broken and another laid over it.

Of the theatre and amphitheatre, which Josephus tells us were among the buildings of Herod, only the latter is to be seen; and this, too, is in such a ruined state, most of the stones being carried off, and the remainder nearly concealed beneath drift sand, that, were it not for the description, it would rather be taken for a theatre. In *Antiq.* XV., ix. 6, we find it thus described:—"Herod built therein a theatre of stone; and on the south quarter behind the port an amphitheatre also, capable of holding a vast number of men, and conveniently situated for a prospect to the sea."

West of this place, on the sea-shore, Lieut. Conder found traces of a jetty and walls of stones, similar to those mentioned in the north-west corner of the town, also two drains partly cut in the rock, partly of masonry, and measuring 9 feet 2 inches in width. Owing to accumulated rubbish, and the tops of the stairs being broken in, their height could not be ascertained. These seem likely to have been some of the drains mentioned by Josephus as "flushed" by the rise of the tide. As on this part of the Mediterranean coast this never exceeds two feet, the drains must have been nearly level. Geological evidence proves that the coast is gradually rising, and during the nineteen centuries which have elapsed since these drains were cut, it is not improbable that they have been raised to the height of some two or three feet above the present sea level.

An oblong space, 350 by 90 yards, towards the east of the old city, seems to have been a hippodrome. Here is to be seen the huge granite column before mentioned, as well as three cones, measuring 5 feet 8

inches diameter at the base, 4 feet at top, and 7 feet 6 inches in height. Near these, and also of similar pink granite, is a square pedestal measuring 7 feet a side, and projecting 1 foot 6 inches above the surface of the ground. The southern end of this course is banked up, and traces of the city wall appear outside it. The circuit of the ancient town can pretty accurately be traced to the corn-fields, as the ground outside them is much more sandy and unfit for cultivation. In most places, too, there are actual traces of the wall, but it has generally been destroyed for the sake of the stones it was composed of, and bits of the worthless rubble are all that we now see.

*Aqueducts.*—The aqueducts for the supply of the town next deserve our attention. They are two in number, and come into the north of the old city near the sea. The high-level, which has a double channel, comes from Subbarín, having been made, according to native tradition, by two daughters of a king, for a wager, to see who would first carry water into Cæsarea. The well at Sindiani, two miles south-west of Subbarín, is said to owe its supply to this aqueduct having been accidentally broken into by women digging for clay to roof their huts. The same legend attaches to some springs south-east of Cæsarea, called 'Ayyún el Benát, the "Maidens' Springs." Here, however, no traces have been discovered.

The low-level aqueduct comes from the Jisr el Zerka, and has a total length of three miles. It is supplied by the Nahr el Zerka, which, at the mills about a mile and a half from the sea, is stopped by a broad dam, which raises the water some twenty feet. Its channel is at first rock-cut, and open at top, but afterwards is a vault of masonry, 7 feet high, and 6 feet 4 inches wide, built on the low hills bordering the sea. The high-level can be traced for six miles, as far as a spring called 'Ain Ism'á'n, a little below Sindiani. At this latter village it is again found in the well from which the natives still draw their supply, but higher up it is quite lost. This branch, though originally supplied from Subbarín, received large contributions from Miamás—of which place more anon—and was then carried nearly due west, to avoid the hills of drift sand. Below the mill of Abu Núr its construction can be well examined. It consists primarily of three red earthenware pipes,  $6\frac{1}{2}$  inches diameter, embedded in hard cement and carried either on a wall or over arches. In one place, air holes to relieve the pressure, and consisting of two similar pipes opening upwards from the conduits, are still visible. To the south of this has been attached, presumably at a later date, a similar aqueduct, also with three pipes. About 500 yards west of the mill this southern section takes an eccentric circuit with four angles, and rejoins the other shortly before passing through the "sea-well." The object of this *détour* is difficult to explain, unless it be on account of the marshy nature of the ground over which it passes. This southern branch is more perfect than the northern, and its arches in better preservation. On reaching the "sea-well" the aqueduct is carried through the rock, and is reached at intervals by man-holes 27 feet deep by 11

feet wide at top, and decreasing to 3 feet 3 inches at bottom. Steps lead down to the water, passing twice along each of the four sides of the shaft. The water channel is too much choked up for any exact measurement to be taken. After passing through the "sea-well," the water was carried on arches to the town of Cæsarea. In some places the aqueduct, judging from the masonry and method of "pointing" the joints, seems to have been repaired by the Saracens or Crusaders.

At Miamás there are several large springs, and many traces of dams and cisterns. At the base of the Khashm, as the bold headland forming the south-west extremity of Carmel is called, is the Kala'at Mi'amás, a Saracenic or Crusading tower tacked on to a Roman theatre. The latter building is much ruined, all the seats being destroyed, and the greater part of the outer as well as the inner line of vaults. The measurement across the front of the theatre, which faces S.S.E., and overlooks the plain and oak woods, is about 180 feet. The masonry is curious: the stones are built together without much regard for order, some being put in lengthwise, others on end, others on their side, the interstices being filled up with excellent mortar. The arches of the *vomitoria* are irregularly built, usually without a keystone. The main wall of the building between the outer and inner vaults is not built in a curve, but in short straight pieces. Several fine granite columns may be seen near the theatre and at the stream below; these, no doubt, belonged originally to the *proscenium*. Around the building are traces of rude dwellings, but as they seem to have been constructed with the stones pillaged from it, they may be referred to the period of Saracenic or Crusading occupation. As yet we have found no mention by any old writer of this theatre in connection with Cæsarea, from which it is distant about five miles. This is curious, as it must doubtless have been frequently resorted to by the inhabitants of that place.

On the summit of the Khashm above is a curious ruin of Roman construction. It consists of a square, enclosing a double and a triple vault with an irregular semicircular arch. The interiors of these vaults are connected by a series of square holes on a level with the ground, and measuring 2 feet by 2 feet. The object of these is difficult to imagine. Near this ruin is a fine rock-hewn cistern of bee-hive shape and well plastered. Directly to the west are the precipitous cliffs of the Khashm, tenanted by numerous griffon and Egyptian vultures, as well as by hawks and eagles of various kinds.

The view from this point is very extensive, reaching from Carmel Convent to far below Cæsarea. Immediately at one's feet dense thickets of reeds and tamarisks cover the marsh of the Zerka, and afford shelter to wild boars and crocodiles. (I have offered a reward for one of these reptiles, and have great hopes of obtaining a specimen.) Eastwards the heights of Shaykh Iskander, above Umm el Fahm, the block of Shaykh Bayazid above Jeb'a, Mounts Ebal and Gerizim, and the main points of the central range southwards, are still visible. Hence the extent of the oak woodland, the *ingens sylva* of the Romans,

of the encroaching tongue of sand stretching eastwards from Cæsarea, and other natural features of the district, may be studied with advantage.

CHARLES F. TYRWHITT DRAKE, F.R.G.S.

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## THE AMERICAN PALESTINE EXPLORATION SOCIETY.

(From the *Observer*, New York.)

OUR American Exploring party have made a brilliant beginning for us. We were expecting valuable discoveries, but not so soon. Our allotted field is beyond the Jordan, and only preparatory labour was looked for on this side the river. But while Lieutenant Steever has been hard at work day and night in Beirut, organising the expedition, testing his instruments, and getting everything ready for the final march, our archæologist, Professor Paine, has not been idle.

### THE HAMATH INSCRIPTIONS.

The readers of the *Observer* have all heard of the famous Hamath inscriptions. Our countrymen, J. Augustus Johnson, Esq., then American Consul-General in Syria, and the Rev. Samuel Jessup, were the first to discover and describe them, some three years ago. Copies of them, first published by our own Society, are now exciting the liveliest interest among scholars. We shall soon be able to put the public in possession of more exact and authentic copies. The stones were taken through Beirut a few weeks ago, on their way from Damascus to Constantinople. Our Consul-General in Syria, J. Baldwin Hay, Esq., persuaded the Turkish Government to permit our party to take impressions of them. The time was short, but Lieut. Steever and Professor Paine gave themselves eagerly to the work, and the result is a complete set both of squeezes and of plaster casts, which are now on their way to America. Our pamphlet, which is soon to be put to press, will tell the whole story; but meanwhile it may not be amiss to state that what have been called the fourth and fifth inscriptions turn out to be but parts of a single inscription carried round the stone.

### THE GREEK INSCRIPTIONS AT DOG RIVER.

But of still greater importance is Professor Paine's discovery of three new Greek inscriptions, the existence of which appears not to have been even suspected. We accept the discovery with gratitude as an auspicious inauguration of our work in the Holy Land. Nahr el Kelb, or the Dog river of modern Arabic geography, is the *Lycus Flumen*, or Wolf river, of the Roman period. It rises in the heart of Lebanon, plunges down a wild and romantic gorge, and empties into the Mediterranean about two and a half hours, or seven miles, north-east of Beirut. The southern mountain wall which overlooks this rapid stream terminates at the sea in a bold promontory, around which, at the height of 100 feet above the water, winds an ancient road cut in the solid rock. The present road was cut in the reign of Marcus Aurelius, about 173 or 176 A.D. It is some six feet in breadth, paved with large uneven

stones. But above it, for a part of the distance, there are traces of a still more ancient road. On the wall of rock that lines the roads (three of them on the present Roman, six of them on the older road) there are nine historic tablets, first discovered by Maundrell in 1697, and often described and copied since. Three of them are Egyptian, and six Assyrian. According to Lepsius, the three Egyptian tablets bear the cartouche of Rameses II., about 1300 years B.C. Of the Assyrian tablets, one at least is the work of Sennacherib, about 700 B.C.

It was on the upper and more ancient road that Professor Paine made his fortunate discovery. He found there three Greek inscriptions, one of eight lines, one of twelve, and another of ten. He took squeezes of them all. The longest, of twelve lines, he has deciphered and rendered into English. Some errors may have crept into the transcription, but the legend is substantially as follows:—

Προκλε πεπον Τατια νου Αρισιοιο Α  
κοιο γενεθλης ιθαγενοιο  
Αρχικα πατριων εξωριαζων φανλω  
πρωθηβης φοινιξ Ηλιομπολεως Θεο  
φιν αρχων Αιψα Μαλεκ τελεων ιερα  
οσσα νοψ φρονεε φοινικη αυτη  
οσον και τοδς εργαζοτεδν νοήμα  
ω μεγα Θαυμα τα αιτυσατα των  
σκοπελων ισον εθικεμεσον  
οφρα Διηνεκεως ομαλην οδον ει  
ν νουντες φεινωμεν χαλεπεις  
υψος οδοπλανης.

Proclus, friend of Tatian, son of Arisius, of A  
co as to his birthplace, of honourable descent,  
leaving behind the royalties of his fathers for a  
common rank,  
A Phœnician in the bloom of youth, of Baal'bek by  
the will  
of the gods, the ruler. Forthwith to Malek perform-  
ing sacred rites,  
As many as he thought prudent for Phœnicia itself,  
in proportion also to this very to be executed purpose.  
Ah, great marvel! the steepest parts of the  
promontories he made level in the middle:  
In order that, from beginning to end, the road being  
even, in  
the rainings we may escape difficult approaches;  
the height being circuitous as to the route.

These names are new to history. Proclus appears to have been a Phœnician, of Aco (Aere), of royal blood, governor of Baalbeck. Of his date, as related to the Egyptian, Assyrian, and Roman dates, this is not the place to speak. Professor Paine's report will soon be published, and our scholars will then have the problem fairly before them.

ROSWELL D. HITCHCOCK,  
*President of the Palestine Exploration Society.*

## SURVEYS IN PALESTINE BY CAPTAINS MIEULET AND DERRIEN, OF THE FRENCH ETAT MAJOR.

*From the Journal of the Paris Geographical Society.*

THE field operations undertaken with a view of constructing a map of Palestine were commenced in May, 1870. The first operation was the measurement of a base on the Plain of Acre. The western end was marked by a station 6ft. 5in. high, on a slight elevation, the eastern by an isolated tree (Dom) on the plain.

From this base, 8,725ft. long, the distance between the station at Tantourah and the Castle of Acre was found to be 22,760ft. By means of the side Tantourah—Acre Castle, the distance between Carmel and Acre Castle was calculated to be about 47,232ft. The side Carmel—Acre Castle was determined by the English Admiralty Survey, and its azimuth was known. This side served as a base for the triangulation.

Twenty-one stations were fixed with a theodolite, and all remarkable features of the ground were observed. The triangulation plotted on a scale of 1-100,000 was used as a basis for the Survey, and the detail was filled in on the same scale with a compass.

The map shows towns, villages, isolated houses, tombs, ruins, springs, wells, rivers, ravines, roads and paths, woods and cultivation; and the features of the ground by contours. All remarkable features of the ground were levelled, and the altitudes of more than 500 points determined with reference to the level of the sea.

The names of all the inhabited places in the mountains, of the rivers, springs, wells, ruins, &c., are carefully written on the map in French and in the Arabic character.

More than 1,019 square miles were surveyed, comprising the greater portion of the pachalik of Acre.

The work was interrupted in the first fortnight of August, 1870, and Captain Derrien is now engaged in putting his notes together.

### FURTHER NOTES ON OUR LORD'S TOMB.

IN a former *Quarterly* (June to September, 1870, pp. 379-81) I submitted some notes on our Lord's tomb, the object of which was to show that it must have been multilocular, and situated to the east of the city, probably on the Bethany road; and, therefore, that the present site could not have witnessed our Lord's entombment.

I am now prepared with further reasons for believing that our Lord was crucified (and, necessarily, buried) to the east of the city.

1. He was certainly crucified on a high road side (Matt. xxvii. 39; Mark xv. 29; Luke xxiii. 26), leading past gardens (John xix. 41).

2. There appear to have been but two *main* approaches to the city,—
  - a. That from Jericho, through Bethany, and round the Mount of Olives, and entering the east of the city by the Fish Gate.
  - b. That from the Maritime Plain and Joppa, entering the north-west of the city by the Gate of Ephraim.

A minor approach from Bethlehem entered the west of the city through the Gate of Gennath.

We must exclude the Joppa road as not complying with requisitions presently to be advanced; and also the Bethlehem road as not leading through gardens.

3. The gardens of David and Solomon were at the junction of the Kedron and Hinnom valleys south-east of the city. The base of the Mount of Olives was laid out in gardens, which also existed to the north of Agrippa's wall. There is no record of gardens existing to the west of the city. The Garden of Gethsemane was undoubtedly to the east of the city, as it was reached by crossing the Kedron (John xviii. 1).

4. In fixing the site of the crucifixion we must bear in mind that it was capable—

- a. Of being witnessed from “afar off” (Matt. xxvii. 55; Mark xv. 40; Luke xxiii. 49).
- b. It must also be within clear view and hail of the priests (Matt. xxvii. 41; Mark xv. 31), who can behold and revile (*in our Lord's hearing*, be it remembered) without fear of the defilement (John xviii. 28) attendant on an execution at the place of  
- a skull.

The city side of the Kedron gorge (400 feet, *not* 150 yards, from the Bethany road) would easily have allowed the women and centurion to have viewed from “afar off,” or “over against” (ἐξ ἐναντίας, Mark xv. 39) the site; and the equally near roof of the eastern cloister of the temple would easily have accommodated the priests and rulers.

Nowhere on the Joppa or Bethlehem roads could these conditions, especially the second, have been complied with. We are therefore driven to the Jericho and Bethany road, which alone of all the city approaches would meet the necessary requisitions.

5. I think the strict conformity between type and antitype necessitates that the eastern side of the city should have witnessed the crucifixion. As the temple faced the east, we can understand the fitness of its veil being rent in the presence of the fleshly Veil rudely torn on the opposite cross; we can understand the consummation of the great Antitypical Sacrifice in full view of the opposite typical altar.

But this analogy disappears if we remove the scene of the crucifixion to the west of the city, *i.e.*, to the back of the temple, whence only its outline could be seen.

6. St. Paul, I think, fixes indisputably the site of the crucifixion. Thus, in Heb. xiii. 11, 12, he writes: “For the bodies of those beasts (the sin offering) are burned without the camp. Wherefore Jesus also . . . suffered *without the gate.*” —

What gate? This is clearly not an abstract statement, implying simply "beyond the city walls," but a distinct reference to *the* gate, τῆς πύλης, by which the sin offering was carried forth to be burned without the city.

Now we can hardly suppose that the sin offering would be carried away all through the crowded and bustling streets, far away to the west, when the eastern gates of the temple, leading directly into the country, were close at hand. Through one of these gates, probably the great East Gate, the offering was taken out; and outside *this* gate, ἐξω τῆς πύλης, our blessed Lord was crucified.

7. Then if he was crucified to the east of the city, there he was buried; for "in the place where he was crucified there was a garden: there laid they Jesus" (John xix. 41, 42).

N. F. HUTCHINSON, M.D.

MORAR, April 28th, 1873.

NOTE.—I think the following extract interesting, as indirectly indicating the eastern site of our Lord's tomb:—"When the apostles separated to evangelise the world, Mary continued to live with St. John's parents in their house near the Mount of Olives, and every day she went out to pray at the tomb of Christ, and at Golgotha."—*Bishop Melito's (of Sardis) History*. See Smith's Dictionary, art. "Mary the Virgin," p. 264.

It is here clearly implied that St. John's house, the tomb of Christ, and Golgotha were alike "near the Mount of Olives." Mary had only to go out to reach the hallowed spots. We cannot understand her as passing through the city to the westward for that purpose.

## HAMATH INSCRIPTIONS.

THE observations of the Rev. W. Wright, of Damascus, demand no comment from me. Time will show whether I was correct in the first tentative investigations of these inscriptions.

It will be observed that M. Clermont-Ganneau in his remarks on the kindred inscriptions of Aleppo, expresses the same opinions as myself in favour of an independent syllabic character anterior to the Phœnician alphabet. He likewise refers to the possibility of its connection with the systems of Egypt and Assyria.

M. Clermont-Ganneau's proposition of the term of Syrian for these characters is useful, because it serves to localise and define them.

HYDE CLARKE.

“MIDDLE CITY”—“SECOND CITY.”

*To the Editor of the Quarterly Statement.*

SIR,—The difficulty felt by your correspondent “H. B.,” when he asks what is the exact meaning of the expression, “the Middle City,” in 2 Kings xx. 4, and of “the Second City” in 2 Kings xxii. 14, Neh. xi. 9, and Zeph. i. 10, seems to have been shared by our translators when they rendered the former *middle court* and the latter the *college*. The critics have been in similar perplexity when they have explained the middle city to be Zion city, and the second city to be the lower city. The confusion serves to show the need of thorough topographical investigation, such as that carried on by the Committee of the Palestine Exploration Fund, without which such references to local features will never be understood.

Some topographical features of the site of Jerusalem are indicated in Psalm xlviii. 2, which should be rendered :—

“Beautiful for height, the joy of the whole earth, is Mount Zion—on the thighs of the north is the city of the great king.”

Jerusalem, says Josephus, was built upon two hills, which are opposite to one another, and have a valley to divide them asunder (*Wars* v. iv. 1). On the north of Jerusalem is a mountain plateau, and these two hills stretch down from it like two legs or thighs, with the Tyropœan Valley between them. The western thigh is the higher, and would be the site of the Upper City; on the eastern thigh would be the Lower City and the Temple; and when eventually the valley between them became occupied with houses, this would constitute the Middle City. The Hebrew word means “middle” in the sense of the divided part. In the parallelism of Hebrew poetry the second line does not simply repeat the idea of the first, but repeats it with some expansion, addition, or variation. In the present instance we have the eastern hill in the first line, and the whole of Jerusalem in the second. A parallel passage is Isaiah xiv. 13: “I will sit also upon the mount of the congregation, in the thighs of the north.” The mount of the congregation is the temple hill, the thighs of the north include the whole city.

Assuming this to be so, let us look at the texts referred to by “H. B.,” and see if any light is thrown upon them. In 2 Kings xx. 4, Isaiah goes out from the presence of Hezekiah, and “afore he is gone into the Middle City” the word of the Lord comes to him. The royal palace, there is every reason to believe, was on the eastern hill—in the Lower City—and assuming that Isaiah was making his way to the Upper City he would have to pass through the Middle City to reach it.

In 2 Kings xxii. 14, “Huldah dwelt in Jerusalem—in the second (Jerusalem).” The Hebrew word (*Mishneh*) means second in order second in dignity, and might well be applied to that division of the city

which was second in order, whether you began reckoning from the east or the west. The Second City therefore would appear to be the same as the Middle City.

In Neh. xi. 9, Judah the son of Senuah is ruler over this Second City. Probably the two "thighs" were separately fortified at an early date, and the valley between them would be suburban to both. It would thus probably be the same as Josephus's "suburbs" (*Antiquities* xv. xi. 5), and perhaps the same as Parbar or the Suburb mentioned in 1 Chron. xxvi. 18 and 2 Kings xxiii. 11. The Second City itself would thus be virtually separate, so as to justify separate rule, and would only need short east-and-west walls at its northern and southern ends to shut it in entirely.

In Zeph. i. 10 the prophet is describing an invasion. Jerusalem, as was usual, is attacked on the north. There is first a noise from the Fish Gate, which for several independent reasons I should identify with the present Damascus Gate, at the head of the Tyropœan Valley. Of consequence there is next a howling from the Second Jerusalem, for the forcing of the Fish Gate has brought the invaders into the Middle City. Next, the alarm having spread, there is a crashing of spectators from the hills which constitute the "thighs." Lastly, the inhabitants of Macktesh are to howl. Macktesh means a mortar or socket, and may be a name descriptive of the hollow at the junction of the three valleys—Hinnom, Tyropœan, and Kidron—where, perhaps, the wealthy people would live. Some place the King's Gardens near here. The inhabitants are to howl because "all the merchant people are cut down." Now, the sweep of the invaders has been down the Tyropœan Valley, and "Tyropœan" is thought by some to mean "Valley of the Tyrian merchants." Another possibility is that Macktesh may have been one of the transverse valleys, since filled up, but rediscovered by Captain Warren.

For different views, see Lewin's "Sketch of Jerusalem," pp. 53, 54, where "the second" is taken to mean Second Gate (from Fish Gate); and Thrupp's "Ancient Jerusalem," pp. 116, 117, where the words of Zephaniah are supposed to indicate not the order of events, but the order in which they would be discovered by a person in the Upper City.

GEORGE ST. CLAIR.

To the Editor of the "Quarterly Statement" of the Palestine Exploration Fund.

April 23rd, 1873.

SIR,—Allow me to attempt a reply to the two queries of "H. B." published in your last *Quarterly*. No doubt in the original of 2 Kings xx. 4, the Hebrew is מֶלֶךְ, which means the city, and not court. But "H. B." seems to have overlooked that this is the *Keri* (the reading in the

text), but that the *Khetib* (the marginal reading) is כְּתִיב, which means court. This reading was evidently before the Greek translators, their rendering being, as observed by "H. B." αὐλή (court), and not πόλις (city). Why the two readings should so greatly differ, and why the one is to be preferred to the other, is a question the discussion of which I presume does not come within the province of your columns. In reference to the second query I beg to observe that the Hebrew word rendered in the authorised version "college" is כְּנֶסֶת, which the Septuagint evidently considered as the name of a certain part of Jerusalem, and therefore did not translate it. The word in question being derived from the root כָּנָה, to repeat, to do (a thing) over again, the rendering "second city" is correct, and seems to mean as much as our *New Town* in contradistinction to the *Old Town*. Should it be the same which Josephus (Bell. Jud. v. iv. 2) calls καινópolis?

A. B.

## NOTE ON THE NEWLY DISCOVERED SAMARITAN STONE.

MR. PRITCHETT writes as follows:—

"In Gaza there have been three Englishmen resident for eight years in charge of the telegraph station. One of them, my friend Mr. Nimmo, received me as usual into his house, and very hospitably entertained Mr. Hamilton also. Another, Mr. Pickard, produced the stone which you mention, and Mr. Hamilton forwarded a squeeze of it to England. The stone had been accidentally found by men who were digging old foundations out of the sand for building materials, and Mr. Pickard brought it from thence. There can be little doubt of obtaining more if proper measures are taken,—through Mr. Hamilton, for instance, who now knows the place and the people. The stone is carefully preserved by Mr. Pickard."

This is at present the only information we have, except the squeeze itself, of the stone. The squeeze has been very kindly given to the Society by Mr. Dunbar Heath, to whom Mr. Hamilton sent it. The inscription is a passage from Deuteronomy iv. 29—31. It has been suggested that the stone belonged to a Samaritan synagogue at Gaza. We shall probably be able to write more fully on this interesting stone in the next number of the *Quarterly*.

## ANNUAL GENERAL MEETING,

HIS GRACE THE ARCHBISHOP OF YORK IN THE CHAIR.

The CHAIRMAN: I will now call upon Mr. Holland, one of the Hon. Secs., to read the Report of the General Committee.

The Rev. F. W. HOLLAND read the Report:—

The work of the past year has been marked by continual and very satisfactory progress.

At the last Annual Meeting the Committee announced the resignation of Captain Stewart in consequence of ill health, and the appointment of Lieutenant Claude Conder, R.E., to take his place in charge of the Survey Expedition. Mr. Conder started for Palestine last July, and has since remained in command, having the valuable assistance of Mr. Tyrwhitt Drake.

The Committee desire publicly to record their sense of the ability, activity, and zeal which both Mr. Conder and Mr. Drake have displayed in the prosecution of the work.

After three years of hard work in Palestine and Syria, Mr. Drake is now on his way to England for a well-earned holiday; but will, it is hoped, shortly return to resume his labour.

The two non-commissioned officers, Sergeant Black and Corporal Armstrong, have continued to give the greatest satisfaction to the Committee, as will appear from Mr. Conder's report, and the strength of the party has recently been augmented by the addition of Corporal Brophy, also of the Royal Engineers.

During the year 1872 the Triangulation and Survey covered 1,200 square miles; during the present year, up to the date of the last report received, 400 more square miles have been surveyed.

The reports of the Survey and work in other directions have been published from time to time in the *Quarterly Statements*, which, in addition to Messrs. Conder's and Drake's reports, have contained many interesting and important papers, such as that on the Meteorology of Palestine, by Mr. Glaisher and Mr. Buchan; Captain Warren's list of Arabic names; Mr. George Smith's account of the history of Palestine as given in the cuneiform inscriptions; papers on the Hamath inscriptions, on the Shapira pottery from Moab, on the chronology of Palestine, and on various discoveries at Jerusalem.

To the writers of these papers, which have all been presented to the Society, the Committee have to express their warmest thanks.

A very important list of probable sites awaiting identification, and suggestions for making further discoveries, has been laid before the Committee by M. Clermont-Ganneau, whose name is so well known in connection with the discovery of the famous Moabite Stone.

M. Ganneau is most anxious to follow up his researches in Palestine,

which have hitherto been attended by such marked success; and the great importance of his suggestions has led the Committee to arrange with him to go out again in October in their service, provided that the necessary funds are forthcoming, and that the consent of his government is obtained, which they trust may be the case.

The income of the Society during the year 1872 amounted, from all sources, to £3,317 1s. 2d. The expenditure included £2,337 9s. 8d. for exploration expenses; £481 6s. for rent, salaries, advertising, and office expenses; £92 1s. 10d. for postage (including the sending of the *Quarterly Statements* to all subscribers), and £281 7s. 1d. for printing and lithographing, *i.e.*, for publishing the results of the work.

In the autumn of 1872 the Committee published a new book, entitled "Our Work in Palestine," which gives a clear and popular account of the work of the Palestine Exploration Fund since its foundation. Five thousand copies of this book have already been sold, and the sale of it still continues to be brisk.

With regard to the present financial position of the Fund, the amount received since the last annual meeting has been £2,985 16s. 4d.

The expenses of the Survey will amount to upwards of £2,400 during the year, and the Committee have now to appeal for funds not only to complete the Survey, but also to enable them to employ M. Ganneau for a year, that he may carry out the explorations which he has suggested, and which cannot fail to afford most valuable results.

A very interesting exhibition in connection with the Fund has just been opened by the Committee at the Dudley Gallery, Egyptian Hall, with the object of increasing the interest of the public in their work and promoting a better knowledge of the Holy Land and Jerusalem. Their special thanks are due to Mr. H. A. Harper for the loan of his extremely beautiful and truthful water-colour sketches, which form an important feature in the exhibition; also to Sir Henry James for the loan of models and photographs from the Ordnance Survey office; and to M. Clermont-Ganneau, for the loan of a valuable collection of inscriptions, seals, &c. Amongst other things there are exhibited the newly-obtained casts of the Hamath Stones, a cast of the Deluge Stone from the British Museum, original Sinaitic inscriptions, models of ancient and modern Jerusalem, Mr. Conder's sketches of the Shapira pottery, and tracings of several sheets of the new map of Palestine, the making of which forms at the present moment the principal work of the Fund. These tracings, some of which are lying on the table before you, show clearly how accurately and well the Survey is being carried out; and how far the new map, when completed, will not only surpass all previous maps of the Holy Land, but also be in itself a complete work, leaving nothing further to be desired.

The Committee have to deplore the loss of the following distinguished members of their body: Lord Ossington, who addressed the last annual meeting, and at all times took the warmest interest in the work, Mr. W. Tite, and the eminent Semitic scholar, Mr. Emanuel Deutsch.

The following is a report, received from Lieutenant Conder, of the progress of the Expedition under his command during the past year.

#### LIEUT. CONDER'S REPORT.

When last the subscribers gathered to hear the history of the work done during the course of the year, the new expedition for the completion of the Survey of Palestine had just received a very serious check—the Committee had been obliged to announce the resignation of Captain Stewart, and but for the energy of my present colleague Mr. Drake, who for six months worked on alone through some of the most difficult country in Syria whilst expecting my arrival, the undertaking must have come to an untimely termination.

So small a party was probably never before entrusted with so important a work. It is but just to add that it is rarely that an officer can hope to command two men so thoroughly able and competent as Sergeant Black and Corporal Armstrong. The entire trustworthiness and soundness of Sergeant Black's work is a subject of the greatest satisfaction, and the zeal and pride in their work, and the quickness which both men have displayed in acquainting themselves with subjects entirely new to them, and in picking up the language, are points in the highest degree connected with the satisfactory nature of the report which I am able to lay before the Society. Palestine contains 6,600 English square miles between Dan and Beersheba, the Jordan and the great sea. Of this we have, at the time I despatch this report, completed 1,615 square miles, or nearly a quarter of the whole. When I reached Palestine in the beginning of July, 1872, the part marked on the map between Jaffa, Jerusalem, and Nablus was complete, with the exception of the hill representation, giving an area of 560 square miles, and a monthly rate of 110 square miles. Commencing again about the middle of the month we worked without a break to the middle of December, and included Samaria, the great plain, Nazareth, and Carmel within our limits. The total was thus brought up to 1,250 square miles, or more than one-fifth of the whole of Palestine—the work of four men in one year's time. The monthly rate during this second period was increased to over 140 square miles, and during the four weeks of September 150 square miles were finished, including the measurement of the "Base of Verification," near Jenin.

The lateness of the rainy season made it impossible to begin in the field before the last day of February, yet notwithstanding the fact that the country near Athlît, Tantura, and Cesarea is far fuller of interesting relics than any part we had previously visited, we had added before moving to our twentieth camp at Mukhalid another 300 square miles, giving a monthly rate of 170 square miles, far beyond any former rate, and indeed not one to be expected in other parts of the country not including, as does the plain of Cesarea, long tracts of blown sand without habitations or ruins. But such a statement of the quantity

completed would not be a satisfactory one, if I were unable to report favourably as to the quality. That this should be superior to that of any former map of Palestine is but a poor recommendation; our aim has been to make the production of a *better*, to the same scale, impossible. In September I was able to send news of the satisfactory nature of the great check on the work obtained by comparing the calculated length of the base line near Jenin with its actual measurement. In December I was further able to explain how, starting from a fixed latitude and longitude at Jaffa, we had carried our triangulation over a length of nearly 120 miles back to another fixed point at Acca, and had done so without error. Further details, and I feel sure not less satisfactory, will be furnished when the calculations in England are worked out.

Of the actual execution of the work the tracings sent to England will give an idea. The credit is mainly due to the workmanship of my two men, as the representation of the hills is the only part which I can claim as my own handiwork. The method employed in this has been considered by competent authorities satisfactory for the purpose, but is, of course, different from that which will be used when the map is engraved. The original copies remain in our keeping, and the work upon them is perhaps better finished than was possible on a thinner paper.

Some account of the method pursued in the outdoor survey may prove interesting to those who see merely the results in England. The average duration of a camp is three weeks, and their general distance apart twelve miles; but the amount of country which it is possible to survey from one centre differs according to its character and the situation of the camp, as regards the old work, from 60 to 150 square miles.

The first day is generally devoted to preliminary arrangements, and to the calculation from astronomical observations of the latitude of the place, other observations being added for the correction of the chronometers.

Our first operations after this consist in the choice of good points, from which the country for a radius of ten or fifteen miles may be seen; and in cases where such points are the highest tops of hills on which no building is found, they have to be visited, and a solid drystone cairn eight or nine feet high, whitewashed on such sides as point to other stations, has to be erected. In sandy ground this is superseded by a mound of sand and bushes piled to a sufficient height. In some cases an artificial tree is found most suitable for long-distance observations. In many places, however, the little square white tomb-house, with its round dome and overshadowing sycamore or carouba shining in the distance, indicates a good standing-ground for the theodolite. These are about as numerous and as useful to the surveyor as are the towers of our English parish churches.

The points chosen, the theodolite is conveyed on the back of a mule

to the spot, and every prominent object is observed, and its position with regard to the point of observation accurately determined. It is on these occasions that my colleague, Mr. Drake, collects the majority of the names, which are afterwards verified. This part of the work occupies about a week, and has lately given an average of ten hours per diem, of which six were consumed in riding to and from the point.

These operations finished, and the skeleton of the map thus constructed, the filling in of the detail next occupies our attention, and it is then that the greatest difficulty arises. A road (though generally a very bad one, yet better than none at all) leads to almost every important point; but where every inch of ground has to be gone over, it is, of course, impossible to follow one path. Cross-country work now begins, and tired horses have to be dragged up and down places where at first sight it would seem impossible for them to move. Rocks and boulders, thistles 10ft. high, deep mud, treacherous marshes, thick coppice, and burning plains, all add to the difficulties of the work, and places which may afterwards prove important are so hidden away that their position could not be imagined till one came quite close. However, by degrees all is worked in roads, villages, ruins, rivers, and all the details you see on the map are fixed, hill slopes measured, the geology examined, and collections increased. One day is then allowed to ink in and finish the whole, and the tents are then immediately struck, and the round of labour begins again.

My professional department is of course the only one for which I am responsible to the Society. Of the two important subjects of nomenclature and identification, it is not my duty to speak; all concerning which I wish to assure the Society is the thoroughness of that part of the archaeological department of our undertaking which it is my calling to superintend. Of the date or value of any particular ruin my opinion would of course not be considered of great importance, except in as far as any one must learn from a constant comparison of various examples of a few styles. Mine is the more modest task of preserving all necessary notes of the fast crumbling monuments of antiquity. We are instructed to discover, measure, and sketch all that remains of ruins, some over 2,000 years of age, which have been subjected in turn to the fury of contending nations, the violent action of sun, wind, and rain, each more powerful than in more northern climates, and finally to the vandalism of the fellahin. I will briefly report on what we have done as regards these instructions.

With the 700 square miles sent home from Haifa, I sent a return, briefly epitomised in the accompanying report. This return contained a notice of every ruin marked on the map between Nablus and Haifa, and it will perhaps be remembered that no less than 35 per cent. were mere heaps of water-worn ashlar, or grey mounds, where once a ruin had stood. In such cases it is of course impossible to do more than mark the place on the map and plans, as sketches would convey no valuable information. Of the remaining relics, however, it is possible

to collect more than can be placed on the sheet, and accordingly a plan of each, with sketches, sections, and drawings of details where necessary, has been made, and the whole are kept in one book, into which they are transcribed as soon as possible from the field note-books. This volume forms, as it were, the memoir to the map. Among its more important contents I may mention notes on the ruins of Cesarea (where we found the wall of Herod's temple to Cæsar and Rome, and the famous drains at sea level mentioned by Josephus), those of Tantura and of Athlit. Three great Roman aqueducts, a little temple near Jenin, Crusading forts at Tell Kaymun, Seffuryeh, Rushmia, Kakun Dustray, Shellaleh, and Kalensawych, and no less than 150 rock-cut tombs of every description. A similar return has been constructed of the country passed over before my arrival, but is not as yet complete, and several plans and sketches await the time when I revisit that part of the country to execute the hill shading. This portion of the work is further supplemented by special surveys on a large scale of such places of importance as Cesarea and Athlit, and finished scale plans of their remaining buildings.

The meteorological observations, on the correct keeping of which Mr. Glaisher, who first interested himself on the subject, will be able to report, have been kept with all possible regularity in our camp, and thanks to the exertions of Dr. Chaplin and of Dr. Varten, they have also been forwarded from Nazareth, from Jerusalem, and from Jaffa. At Beyrout they have been under Mr. Eldridge's care, and have no doubt been equally satisfactory.

*Geology.*—The instructions with which I am furnished containing the combined experience of preceding expeditions, further direct my attention to the geology and natural history of the country as collateral branches of investigation. The Society has, indeed, refused to content itself with other than *professional* work; but I hope that when the time comes for sending out a distinguished geologist, the geological map which I am constructing may prove of service in directing him to points of interest, and that observations made honestly will be verified by his researches.

*Natural History.*—In natural history our attention has been chiefly confined to entomological collections and to the drying of plants. I may mention that a valuable collection of Orthoptera and Coleoptera is now being carried on at Jerusalem by Dr. Kersten, as the nucleus of a Jerusalem Museum, and that he has very kindly given me every possible assistance and much useful advice.

I cannot close this report without touching on a subject which to me, as to all members of the Fund, is of the very highest interest. I mean the "Exploration of Jerusalem." The attention of the Fund has indeed been lately diverted from this centre, but I sincerely hope that the labours of Captain Warren are yet to be followed out, and that I may be allowed part in an investigation, the interest of which is to me personally far beyond that of anything in the country, and to

the understanding of which I have already devoted more than five years of study.

No one can visit Jerusalem without being impressed with the courage, endurance, and ability which must have been necessary to enable Captain Warren to vanquish the difficulties he had to encounter and to collect from such a depth of *débris* the valuable data we now possess. In the Haram enclosure there is but very little of importance which he has left to be done. To a few points specially indicated by him I have turned my attention, and have been able to make a more minute survey of the surface of the Sakhrāh than seems to have been possible before. One point of the greatest interest yet remains unsolved: the Well of Spirits below the rock is still a mystery, but great advances have been made in facilitating such investigations, and we need not yet despair of final success. Time will work wonders, and it must not be forgotten that money will do even more.

There are yet two subjects of the most paramount importance to be examined in Jerusalem, and the interest they excite is not, I believe, at all diminished. The first is the claim which the venerable Church of the Holy Sepulchre asserts to be considered the true site of the Saviour's tomb; the second is the discovery of the royal sepulchres, in which David, Solomon, and their successors lay embalmed. It must be pretty generally understood by members of the Fund that the first question hangs on the discovery of the site of the starting-point of that "second wall" which at the time of the Crucifixion was the boundary of Jerusalem. I have already submitted to the Committee a plan for its determination, based on the apparently obvious method of finding the first wall first, and have been given to understand that its acceptance was only delayed by want of funds.

As regards the tombs of the kings, I know of but one indication on which to work. Benjamin of Tudela, a traveller less credulous and ignorant than most of his immediate successors, graphically describes their accidental rediscovery in his own time by masons employed in the time-honoured custom of destroying ancient monuments by the demolition of the old Zion wall. Allowing for the natural exaggeration for which terror, darkness, and the rush of innumerable bats may account, there is but little reason to discredit the account. My proposal for the refinding of the tombs was to follow the example of these mediæval workmen, starting from a fixed point at the modern Bishop's School, and tracing the Zion wall northwards and eastwards—towards the city, and towards the ancient Ophel wall already discovered by Captain Warren.

As regards the question of funds I have but little to say. The expenses of the survey are reduced to a minimum, and it has again and again been shown to subscribers that an increased yearly expenditure for a shorter time is far more economical than the continuation of the present rate of work and of outlay for a period of five to six years. The Committee have been able to add one more member to my

party, but this is hardly sufficient to enable me to carry out the double party which I had hoped soon to organise. It must be remembered that this is simply a question of health. The climate becomes more trying to a European every year he remains in the country, and should the Society lose the services of either Sergeant Black or of Corporal Armstrong, now trained to the work and thoroughly competent, and lose them by failing to lighten and shorten their work, they will find it very difficult to supply the place of either without damage to the character of the work.

Could funds be collected for work in Jerusalem I should advise a partial break in the survey, for the reason that, situate as we are in remote corners of the country at a time when travellers are thronging into the city, the work of the Fund is but little known, and the large amount of interest which might be excited by a few tangible discoveries, which might be seen by every visitor, is entirely lost.

In conclusion I may be allowed to direct the attention of the meeting to the valuable services rendered to the Fund by many residents in Palestine.

The interest taken by Dr. Chaplin in our work, the care he has shown to keep it before the eyes of the world in this country, when we were unable to speak for ourselves, his long experience and great knowledge of every antiquarian subject connected with Palestine, without mentioning his unvarying courtesy and kindness, have been of the greatest service to ourselves and the Fund generally.

In Herr Konrad Schick the Fund has also a most valuable representative. His patient labour, and the advantages he enjoys from his position in Jerusalem, have enabled him to do work which it would be impossible for any others to do. The diagram of rock levels throughout the city, which he has kindly prepared at my request, is probably the most important basis on which to begin a study of the ancient topography that has been obtained since Captain Warren left the country.

I have already spoken of Dr. Kersten, and must recognise the kindness of Mr. Zeller in supplying us with a list of names in the centre of Palestine, and in guiding us to the discovery of several important antiquities, which we could not have found for ourselves.

From Mr. Elkavy, the Protestant missionary at Nablus, we also obtained a similar list, and received kindness and hospitality which were most acceptable in our long journeys through the country.

The general courtesy and ready help which we have met with from Europeans in all quarters, and especially from Mr. Moore, in the arrangement of our little local difficulties, is also worthy of the gratitude of the Fund; and in conclusion my own personal thanks are due to Captain Wilson and Captain Warren for their kindness in supplementing my inexperience by their own professional knowledge and advice.

The CHAIRMAN: I can unfeignedly say that I occupy the chair here

to-day with something of shame and regret, because I wish that some one of those who have taken an active part in this work which we have carried on now for several years could have replaced me on this occasion. I fear the sound of my voice must be a weariness to you; but my right to stand here consists in this,—that I feel that I represent the general public who meet once a year to encourage the active workers in the scheme, and to hear from them what they have done. The Fund has now expended a sum approaching £20,000; and for the first time we are obliged to say we feel a prospect of that alarming thing called a deficit. £20,000 is a large sum; but when I think how easily this nation gets rid of £20,000 for objects which have no great meaning after all, I cannot help urging the claims of this Fund, because we think the country can well afford it, and we think the object we have in view—that of making the words of the Sacred Book better understood—is a noble object, and one that is especially worthy of the people who have done more for the circulation of the Bible than any other people in the world ever did—the people of Great Britain. And when I say that we have expended £20,000, large as that sum is, I do not think the work will stand still because we have spent a great deal upon it. The object we are now engaged in is more interesting to men of science and cultivation than to the general public. History has something vague and unreal about it until you know the geography of the country in which the events of history have taken place, and not until you have a perfectly good map upon which the actors may stand does history become a reality. Well, it is the making of a perfect map of Palestine which has occupied us in the last year—not a map in which conventional mountains are laid down, nor yet a map constructed in that older fashion where monsters were exhibited as occupying large districts which were left blank—but a map which shall be a true picture of the country as it is now. One-fifth of this work is accomplished, as you will see on reference to the map before you, and you have therefore to do the rest. We have to regret that this Fund has lost during the past year two of its most excellent friends and supporters. Last year, on a similar occasion to the present, my much-esteemed and valued friend, Viscount Ossington, addressed the meeting. No man in this country took a greater interest in the cultivation of the people, and as you are aware, he gave us the benefit of his support because he thought this Fund would do much to cultivate a knowledge of the Scriptures. Again, one of the best scholars we had among us at our former meetings was Mr. Emanuel Deutsch. He also has been taken away. His Oriental learning was extremely great: not a son of this nation, he was ours by adoption, and at all times took a great interest in the affairs of this Fund. Well, we have completed during the year one-fifth of the Survey of Palestine, and we have put forth a new book—“Our Work in Palestine”—which the public evidently takes a great interest in—since it has purchased to the extent of 5,000 copies in a few months. This is a matter of congratulation to us, because the circulation of this book will do more to show what this

Fund has undertaken than the speeches here or anything else, because it contains the travels and actual discoveries of the Fund's officers, and because it also gives conclusive evidence that the field of research is immense. Regret has been expressed in the Report, and very naturally, that we have left our work in Jerusalem for the present; but we hope to go on with it again. M. Clermont-Ganneau wishes to devote his time and attention to the researches promoted by this Association. There are difficulties in the way, but we trust that those who wish that Jerusalem should have a large part of their attention will be able to have their wish gratified. I will not trespass on you, or prevent other speakers addressing you, but I will remind you that this Society is established for the promotion of the study of God's holy Word; and it has done a good deal in that direction—first through the volume which I hold in my hand, and in the second place, as you will see by a glance at that map, in the Survey of the country, and, as you have heard in the Report, by the prospect of its completion. There is a third point which should not be forgotten. Every society of this kind, besides the direct work which it does, promotes other work of the kind: it is like a beam of light; though the ray of light itself is straight, it diffuses.

Something should be said here of the researches of our excellent friend Canon Tristram in the land of Moab. His work on that land will show you what it is, and the kind of hopes that will rise up in the minds of travellers in connection with this Society. He discovered some ruins, for instance, where he found a temple of great magnificence and beauty, though for the most part ruined. But it was more than a beautiful temple: it belonged to no existing style of architecture, and was full of rich decoration which could not be classified. Imagine how our friend Mr. Fergusson would gloat over such a discovery. To connect this with any form of architecture a link was wanting. This Canon Tristram found. In a little church in Italy he discovered a triangular ornament, and there, behold, he recognised this fragment which he found in the Persian temple of Mashita. Now the question which it is my duty to put to you is, Will you help us a little more on the ground of what has been done? Will you help us to prosecute these researches a little further, to illustrate the Book which is foremost in our interest and chiefest of our studies? There are plenty of results to be obtained, and if you will give your time and your money to the cause a great amount of success is certain to follow. (Cheers.) I ought to have called upon Mr. Tyrwhitt Drake himself to read his report, but he is not here to-day, and we are afraid he is unwell. I am, however, now going to mention a name which deserves the highest honour in connection with this subject. I will call upon my friend the Dean of Westminster to move the first resolution. (Loud cheers.)

THE VERY REVEREND THE DEAN OF WESTMINSTER: My Lord Archbishop, Ladies and Gentlemen,—The first resolution which I have the honour to move is this, "That this meeting, having heard with satisfaction the Report presented by the Committee of the progress of the Survey

of Palestine, and of the operations of the Fund in other directions, pledges itself to use its utmost endeavours to raise the necessary funds to carry on the work to a successful conclusion." Like the Archbishop, I have so often addressed you on these occasions, and so often used the same arguments, that I have the same diffidence in referring to them again; but, nevertheless, one peculiarity of this Society is that it is perpetually discovering something fresh, and so supplies both your Grace and myself, and other speakers, with fresh arguments on the objects it has accomplished. No doubt it is true, as has been said in the Report, and as your Grace has said, we have a little wandered from the original field of our object, the exploration of the city of Jerusalem; and I have never wavered in my opinion that this is the part of Palestine which most demands exploration and investigation, and which is most likely to yield permanent and unexpected fruits; but the very fact that we have this chief object always in advance of us is like the Holy Grail pursued by the Knights of the Round Table, and may have the advantage of reminding us that, whatever other investigation we take up, and however long we put off the exploration of Jerusalem, this ultimate goal is before us as a perpetual incentive. I now turn to what has been done in the last year towards the completion of the map of Palestine; and there are one or two things which occur to me to say on looking at that map. When I look at that black line which indicates what we have accomplished, it is interesting to think that our Society has done so much, for in one sense that is the most interesting part of Palestine. But to me personally it is the least interesting part, because I know it best. What I want to see explored is not the western part of Palestine; I am burning to see that which I do not know, and what I do desire to see is the completion of the Survey on the east of the Jordan; the extension of that black line to the end of that blue streak, which represents the chasm of the Jordan Valley. We are in the habit at these meetings of using a little exaggeration in saying that very little or nothing has been done by previous travellers, but I think that is an error. In a general sense we do know a great deal about Western Palestine. No doubt even there we want precise knowledge. Nevertheless our enemies, if there be such wicked people in the world—our enemies might say that of the western side of the Jordan we have a very fair knowledge. But when you pass that black line, and cross the valley of the Jordan, we know—I am not sure whether I ought to be sorry to say it—but we know very little indeed. I may just mention one single instance, if you will allow me, to show you the incompleteness of our knowledge of Eastern Palestine. One of the most interesting scenes in sacred history is the meeting of Jacob with his brother Esau, as described in the book of Genesis; and never having been on the east of Jordan, I wished to make out exactly what the place of that event, and the nature of the scene, and in the first instance the precise nature of the valley of the Jabbok. But on turning to the word "Jabbok" in Dr. Smith's Dictionary of the Bible I found that all reference to the peculiarities of the stream, or indeed to

the scene itself, was entirely passed over. I then went to the Speaker's Commentary (and in mentioning that honoured name I would add the echo of my humble testimony to what your Grace has said of the great loss we all sustained), but here there was not one word of explanation of any kind. I then looked to books of travel which have touched upon it, but not even with the help of these could I form to myself any fixed, certain notion of what the place was like. I mention this because this was an incident that would certainly be brought out in a map, and we should have the whole thing placed before us very differently to the inadequate way in which it is put before us at present. So much for a negative proof of what we want. Now let us give two positive proofs of what may be gained by exploration on the east of the Jordan. I refer with great pleasure, in his presence, to Canon Tristram's "Land of Moab." I will not here repeat what your Grace has said of the Palace of Chosroes. I will only say that the discovery of the palace of that great king of Persia is most opportune at the moment that his successor is landing on our shores. But there are two localities described in that book which are connected with the Old and New Testament history. One is Callirhoe, the hot or cold bath to which Herod the Great was brought at the end of his life, which has only been described, and that but slightly, by one previous traveller, and any spot more romantic, more beautiful, than this wild glen, as represented by Canon Tristram, I cannot imagine. The other is Machærus, the castle in which John the Baptist was beheaded; most interesting on that account alone, but which never has been described before by any one. I am therefore thoroughly satisfied that the completion of this Survey is one of the most important things we have to do. I will only, in conclusion, say that I am glad we have been able to enlist another nation than ourselves in this great object, in the person of M. Clermont-Ganneau, and although we shall always have the credit of having commenced this Fund and kept the fire burning, yet we do not grudge other nations the credit of any assistance they may give in carrying out what we have begun. (Cheers.)

Mr. WALTER MORRISON: My Lord Archbishop, Ladies and Gentlemen,—I have been called upon at a very short notice to second this resolution, and to supply the place of Mr. George Grove, whose name is so well known to Biblical scholars. Mr. Grove has been unavoidably kept from coming here to-day, as we have received a message from him to state, by that cause which is upsetting all the arrangements of English society—namely, the Shah of Persia, who, as you are aware, is going down to the Crystal Palace next week. We have also much to regret the absence of Mr. Tyrwhitt Drake. We arranged this meeting at a time when we fully expected him, but, as you know, the climate of the East is one that tries and tells upon European constitutions. It has been necessary for him to come over for his health's sake, and he arrived at Trieste on Tuesday last. We have sent a telegram to him, but no answer has come, and we are afraid that he is laid up by some serious illness. Coming now to the resolution which it is my duty to second, let me refer to

the remarks which have been made by the Dean of Westminster as to the change which has taken place in our operations. This change has been pressed upon us by many of our subscribers. When we established this Society seven years ago we set before ourselves three objects—one of which was the preparation of a map of the country, and we thought those who would have joined us required something in return for their money in the way in which they would like to see it expended. And another reason which influenced the Committee when it was proposed to change our plan of operations was, that we have been in the habit of receiving subscriptions from our cousins across the Atlantic. They, however, suggested that they had better get up a society of their own; we therefore offered to divide the Exploration of Palestine with them, and offered them the East of Jordan. After we had done that came the discovery of the Moabite Stone. Our American friends were anxious to explore their part of the country, and we felt that we had no right to trespass on their portion of the Survey. However, we have gone on with our work, and out of 6,600 square miles of country Lieutenant Conder has finished the survey of 1,650 square miles, and I think that is not an unsatisfactory amount of work to have finished during the comparatively short time we have been at work. Roughly speaking, Palestine is about the size of the principality of Wales, and if you will come and look at the work on this table you will find that there is no shortcoming to be complained of at all. You must recollect that our surveying work is not merely confined to the part within that black ribbon, because it includes the part completed by Major Wilson and Captain Anderson, and portions of the Jordan Valley surveyed by Captain Warren, the Admiralty Survey, with Lynch's Survey of the Dead Sea, so that even if we were to come to a termination of our Survey now we should have a much better map of Palestine than could have been thought of ten years ago. I have the honour to occupy the position of Treasurer to the Fund, and I would ask the meeting to think especially of the concluding part of the resolution which I have seconded—namely, that it “pledges itself to use its utmost endeavours to raise the necessary funds to carry on the work to a successful conclusion.” In changing our observations from Jerusalem to the Survey of the country we have gone aside from a sensational work to one of a different nature, because it requires a certain amount of thought and abstraction to realise the difficulty of completing a survey of this kind. Palestine has been frequently visited in recent years, particularly by tourists, who pass through the country every year, but until we commenced our excavations travellers only passed along the main streams and the beaten tracks. One of the incidental advantages of our Survey is that we can prove a series of negatives. Thus we have shown, which is in itself a most valuable piece of knowledge for future explorers, that there are certain districts in which nothing can be discovered. When we cover Palestine with triangles of fifteen miles from point to point it is extremely improbable that anything

of importance can escape the attention of the explorer, and when a given district is thus thoroughly explored, it is a guide to future explorers not to wait there, but to seek elsewhere. On the other hand, if ruins are found which have never been visited before, it is likely that they will give a clue to identify other sites as well. With regard to the proposed arrangement with M. Ganneau, he is one of the most competent men to make discoveries in the Holy Land; he is a man of recognised ability, and has long had an official residence in Palestine, and has since been made dragoman to the French Embassy at Constantinople. He has first of all the advantage of knowing intimately the current dialect of Palestine, he has been accustomed to deal with the people, he knows who to put questions to, and how to get information without putting leading questions; and it would be of the utmost value that Mr. Tyrwhitt Drake and Lieutenant Conder should have a gentleman like M. Ganneau to support or criticise the conclusions to which they have arrived. This matter, however, is still *in nubibus*, and it depends on the French authorities whether we shall have his services or not. I can say no more at present, except that I hope those present will endeavour to persuade their friends to come forward to help us with the work we have in hand. It is true that our funds are not in a satisfactory state, but we are committed to the work, and must go on with it, and I hope the public will come forward and prevent us from being disgraced. (Cheers.) The resolution was unanimously carried.

The REV. CANON TRISTRAM: The resolution which I have the honour to move is this,—“That this meeting hails with pleasure the announcement that a preliminary American Expedition has commenced its work of exploration on the east of Jordan, and trusts that the two sister Societies will always continue to work heartily together.” I might almost say that my friend the Secretary had had a little satirical humour in his mind, in selecting me, who have just been pioneering east of Jordan, to propose this resolution; but I do it with a good feeling, and with a cordial conviction that our American friends are likely to do a good work in Palestine, and that they are the men to do it. Four-and-twenty years ago, when I was in America, and when the rush was made to Minnesota and Iowa, no attention was devoted to the east, but every effort was made to get farther west; but now we find the Americans have reached their western limits, and, turned back by the waves of the Pacific, have determined to be foremost in the eastward march. I do not know that they will get ahead of us in that way, for we have been the real and true pioneers in Palestine exploration. Yet there are no three men of modern times who have done so much in their several departments, and who have done that work so well, as Dr. Robinson, Lieut. Lynch, and Dr. Thompson, and they were Americans. Right glad, therefore, are we to find that their mantle has descended on worthy successors. Let not our Transatlantic cousins fancy that we have forestalled them in Moab. Though I have just returned from an expedition thither, I feel our party have only been as Uhlans prospecting the

ground, and making a *reconnaissance* for the regular army of explorers that is to follow. We have at least, I hope, drawn attention to the work that remains to be done east of Jordan, and which I fancy rather exceeds the expectations even of my friend Mr. Besant himself. Of the eleven cities up to this time unknown, we have only succeeded in placing four, leaving still seven for the investigation of the American expedition. Again, south of the Arnon and eastward of the Moabite mountain range, the ground is quite untouched, and the followers have a virgin field. I have great pleasure in moving—"That this meeting hails with pleasure the announcement that a preliminary American Expedition has commenced its exploration on the east of Jordan, and trusts that the two sister Societies will always continue to work heartily together."

DR. BIRCH : My Lord Archbishop, Ladies and Gentlemen,—It affords me great pleasure to rise to second the resolution. At a former meeting of this Fund I seconded a similar resolution; and I am gratified to find that the American branch, or sister Society, has undertaken the investigation of the country east of Jordan, and that they are willing to deal in a most liberal spirit with ourselves. With Palestine proper, as has been well detailed by the Dean of Westminster, the world is well acquainted. There were, however, some peculiarities about the ancient Hebrew people. I believe they did not use inscriptions so extensively as other nations of the world; and few have been found in Palestine itself; but it is not so in Moab and east of Jordan. Only there is one caution necessary to be observed. If there are any spurious monuments, or monuments of doubtful antiquity, it will require not only considerable learning, but considerable archæological experience, to avoid being defrauded. Some of the things, sketches of which are now exhibited in the Dudley Gallery, profess to come from Moab, and the question is how far that is true. The country east of Jordan is, of course, a country of extreme interest, and it is to be hoped that the Surveys of the two Societies will be carried on in the same manner. That, I have no doubt, the Society has arranged. It is also to be hoped that they will note all the monuments they find, and collect such fragments as may be discovered in order to fix dates. The difficulties of exploring Jerusalem are very great, because you must go under the rock, and great obstruction must arise in carrying on operations under such conditions. Jerusalem is a city which has been subject to an infinite number of adversities. It seems to have been swept of ancient remains, and with the exception of those of the Roman period very few remain, particularly of the times of the Kings. Some, however, have been found, and there is no reason why other monuments may not be found in future explorations. At the same time the portions hitherto explored have not been very prolific. For these reasons I think we ought to hail with the greatest satisfaction the work carried on by the American Society, and wish them God-speed upon their way. (Cheers.)

The proceedings ended by a vote of thanks to the Chairman, proposed by LORD ALFRED CHURCHILL, and seconded by Mr. MACGREGOR.



THE  
PALESTINE EXPLORATION FUND.

PREFACE.

THE report of Lieut. Conder, dated June 21st, 1873, contains an account of the filling up of the Survey west of the watershed to the old boundary, leaving only a few weeks' work on the Plain of Sharon. From the work Mr. Conder has selected twelve places (plans and sketches of some of them have since been received at the office) for special report: of these only two sites were previously known, and the identification of the remaining ten remains to be ascertained. The remains at Dayr Asruh are exceedingly interesting, especially if, as Lieut. Conder thinks, they prove to be of Herodian date. It is illustrative of the need of such a Survey as ours that this splendid ruin, standing on a hill only ten or twelve miles from Nablús, should have wholly escaped observation. It consists of a street with houses, cisterns, and towers, a public building of some kind, and the remains of a wall. These ruins will probably be visited again. At Dayr Allah our party found the ruins of another Roman town, but not in so good a state of preservation. Tombs of three kinds (see *Quarterly Statement*, Jan., 1873, p. 23) were found at Kh. Fakhakhír; buildings of apparently Roman date were found at Karáwa ibn Hassan. Sergeant Black discovered also here a very remarkable tomb called the Dayr el Derb, while Corporal Armstrong discovered another equally curious, though not so large, at Kh. Kurkush, in the wildest part of the hills. The tombs at Abúd described in this report were visited by Major Wilson in 1866, as was also Tibneh, where is the traditional tomb of Joshua. Lieut. Conder's account of this will be read with the greatest interest. We must call attention especially to his tracing of the old Roman road. Those who have read the volume issued

last year by the Committee, "Our Work in Palestine," will remember the Roman road in the old map, there reproduced from the *Tabulæ Peutingerianæ*. It branches off at Gophna (there spelt Cophna), and while one road continues straight through Neapolis to Cæsarea, the other strikes west to Lydd (Luddis), and then turns north to Cæsarea. It was by this latter road that Saint Paul was taken by night to Antipatris (Kefr Saba). Captain Anderson surveyed it as far as Abûd, where Lieut. Conder has taken it up and traced it in its two new branches, both of which are rudely represented in the "*Tabulæ*," till he lost them in the plains.

Our illustration this quarter gives the result of Mr. Schick's long-continued examination of the rock levels of Jerusalem. It contains the rock levels found by Major Wilson, Captain Warren, Mr. Schick himself, and the latest work in the city. From these observations, about two hundred in number, Mr. Schick has constructed a model, now in the office of the Fund, and Lieut. Conder has made the contour map of the city which accompanies his memoirs on the subject.

The notes on Lieut. Conder's Baalbee report do not properly belong to the work of the Fund, as Baalbee lies out of our district. It may be remembered that more than a year and a half ago letters appeared in the *Times* calling attention to the danger threatening the columns, and it was then resolved, before the American Expedition went out, that the officer in charge of the Survey should be asked to report, whenever practicable, on the actual condition of the ruins.

Mr. Tyrwhitt Drake, whose health required a visit to England, has now returned to Palestine completely restored. M. Clermont-Ganneau goes out immediately. He will begin his work at Jerusalem itself.

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# THE SURVEY OF PALESTINE.

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LIEUT. CLAUDE R. CONDER'S REPORTS.

## XIV.

BELAD EL JEMAIN TANI BENI SAB—UNEXPLORED COUNTRY.

BEYROUT, *June 21st*, 1873.

*Report of Progress.*—Since reporting on the work done up to our camp at Mukhalid our time has been so fully employed, the amount of work so large, and the rate so rapid, that I have been altogether unable to attend to anything beyond the management of the field work and of the expedition generally.

The rate of work has been very satisfactory, and far beyond anything I expected with my original party. The country gone over is almost entirely unknown, and thus I hope the present report will be of greater interest than any I have yet sent in.

Leaving on the 7th of May our camp at Mukhalid, we established ourselves at Kefr Zebad Bidyeh and Rantis, breaking off work finally on the 7th of June, and retiring to Lebanon to pass the hottest portion of an exceptionally hot summer. In that time we succeeded in bringing the work back to its old boundary, filling in all the hill country W. of the watershed, and only leaving some three weeks' work in the plain of Sharon, which Dr. Chaplin forbade us to undertake so late in the year. The Ordnance Survey thus extends over 1,800 square miles, 3-11ths of the whole area of Palestine, whilst the monthly rate since leaving Haifa has been close upon 180·89 miles, being treble that originally obtained, and an increase of nearly 30 per cent. on the maximum which I was able to reach last year. This result cannot fail to be encouraging to all concerned. Were my party doubled by the addition of one more N.C.O. before the recommencement of our work, I think I could almost promise an average rate of 240 square miles per month, which would represent the completion of the map in two years, working ten months in the year.

The following plans and sketches are obtained, and at Damascus I hope we shall have time to work them out.

1. *Dayr Asruhr.*—Remains of a large town, probably of Herodian period. Plans of the two principal buildings. Sketches of detail. Special survey of the whole site. Plans of rock-cut tombs.

2. *Kh. Kurkush*.—A cemetery of well-finished tombs. Plans, sketches, measurements of details, &c.
3. *Karāwa ibn Hassan*.—Plan and sketches and details of a very fine tomb, well preserved. Plan of a church (?). Two crusading buildings in the town.
4. *Mokat'a Abud*.—A cemetery of well-finished tombs. Plans. Measured sketches of detail. Painted interior, well executed in cement. Greek church in village.
5. *Tibneh*.—Special survey of the site of town. Plan of so-called Joshua's tomb. Sketch of the exterior.
6. *Dayr Kala'ah*.—A finely-preserved 5th century monastery. Plan, elevation, sketches of detail, ornamentation of chapel, &c.
7. *Dayr Sam'an*.—A similar building, less well preserved. Plan and details.
8. *Dayr Arrabeh*.—A similar building. Plan alone traceable.
9. *El Duayr*.—Similar building, but smaller plan traceable.
10. *Kh. Fakhakhir*.—Tombs, and a building, possibly a synagogue.
11. *Dayr Allah*.—Remains of a town, with a small temple, close to the Roman road to Jaffa.
12. *Nebi Yahyah*.—Plan, section, and measurements of all the details.

Of this list of places visited, surveyed, and measured during the course of one month, only two sites were previously known, the rest are, I think I may state with some certainty, quite new discoveries. I am sorry I cannot add an inscription to the list.

In geology we have found two more basaltic outbreaks, and collected some valuable fossils.

The reasons for the increased rate of work are various. The triangulation has occupied much less time than it did at first, because the triangles have been larger, the points therefore fewer; because on the east we had a number of old points which it was not necessary to visit in order to be certain of their suitability, and because of a very strict economy of time in the arrangements, the number of days consumed by this part of the work being reduced to a minimum. Then, also, the detail has been more rapidly pushed on, partly because of greater practice, partly by reason of the large tracts of sandhills along the sea-coast, which can be very rapidly surveyed. The addition of Corporal Brophy to the party cannot be counted, as he has not as yet been able to assist; nor does the execution of a share in the sketching by myself from the last two camps make any very large difference; the work as it stands is that of the original party of last year. Against the facilities of work must be balanced certain disadvantages: the unusual number of plans and special surveys which it was necessary to make; the greater heat on the low hills and in the plains, with mirage consequent to it; finally, the extremely wild and difficult nature of the country through which we passed last.

A short description of the principal sites mentioned in the above list may prove of interest; they include towns, cemeteries, roads, and convents.

*Dayr Asruhr*.—This interesting site, for which I obtained four various names, of which that chosen seems to me the most probably ancient, is situate on a hill about ten or twelve miles W. of Nablûs, in a fine and commanding position. It seems to have altogether escaped notice, and perhaps from this reason is in a better state of preservation than any similar ruin in the country. Of the character of the details an archæologist alone can judge, but I think I may venture to assert that it dates as far back as Herodian times, an opinion strengthened by the discovery of a much-defaced bronze coin of the time of the Roman emperors—the reverse a wreath with S C, the obverse a head.

The ruins occupy about a square mile, and seem to have been surrounded with a wall. A large building facing north and south exists at the north-west corner of the town, and a second, facing at  $107^{\circ}$  on the compass, is found on the east. The north wall of the former is standing in parts to a height of 23ft., and a fine solid semicircular arch, 14ft. span with 13 voussoirs, marks the position of an entrance. The rubbish in this part, which is level with the springing of the arch, must be of some considerable depth. The site, if identified, might be worth special study and excavation. The wall consists of stones of fair size, well cut and laid. The height of the courses is very irregular, and many stones are of great length as compared with their height. Of those measured at the corner the length varied from 5ft. 3in. to 1ft. 6in., and the height from 1ft. 11in. to 3ft. 5in. They all appear to have been drafted, a well-finished shallow draft, 2in. to  $3\frac{1}{4}$ in. broad, the central boss being well worked to a perfectly plane face. In many cases the draft is hardly traceable from age, and this, in connection with the finer finish, the unusual proportions, the semicircular arch, and the flat lintels and classic mouldings of the doors to the rest of the building, make me suppose the masonry far older than the coarser and rustic work of the Crusaders who built Athlît and Cæsarea. The building seems to have been unsymmetrical in plan, with a large hall leading through to the southern door, the jambs of which still remain, whilst on the west three entrances led to smaller apartments. The east wall is not traceable above ground.

Passing along what seems to have been a street, with well-built houses, cisterns, and small towers, the foundations alone remaining, we find on the east the remains of what I suppose must have been a public building, though it can hardly have been a temple, facing, as it does, roughly westward, but not exactly to any cardinal point. It appears to have stood in a court, surrounded by a terrace wall of fine masonry; the walls are still standing for two or three courses, and are nearly 7ft. thick. The building is 65ft. long and 44ft. broad, the most curious detail which one at first notices being two great blocks nearly 10ft. high, but only 2ft. square, which stand up *in situ* at the north-west and south-west corners. Their bases are below the general level, and are ornamented with a classic moulding.

I should imagine that the floor within this building was at a higher

level, and that steps originally led up in front, but the accumulation of rubbish does not allow of this being well seen. A cross wall forms a sort of porch or Pronaos, thus giving the impression that this was a temple. A large block fallen within measures 11ft. in length. Various shafts, about 2ft. diameter, lie without, hence one is led to suppose that there were three walks about 10ft. wide, as thus only could the width be spanned; excavation might bring to light the bases of these pillars. I noticed a curious indented joint or joggle in the exterior wall, of which I retained a sketch; it disturbs the horizontal joint as well as the vertical. We further found a stone, 5ft. long and about 2ft. square, with a flat pilaster cut on either side, with a base and capital of debased, or Jewish classic appearance, cut in low relief. From its size this must have either belonged to a window or to a set of pillars in a second order, or clerestory. Remains of a tessellated pavement also exist. This building stands above a deep broad valley, on the opposite side of which are well-cut rock tombs, with loculi placed parallel to their walls—the cemetery of the town. Following the wall we find cisterns, birkets, a small tower of stones over 10ft. long, and a little vault or tomb into which two columns have fallen. Vaults are said to exist below the town, but this is unlikely. On the south-west and west the rock is scarped below the apparent remains of a wall, and a projection in one part seems to have supported a small turret.

These notes, I imagine, will lead to the conclusion that we have here recovered an interesting and perhaps important site.

*Dayr Allah.*—This also seems to have been a Roman town, but smaller, and with no signs of such fine buildings having existed in it. The ruins extend over about 300yds. length and breadth, the principal being walls of fair-sized stones undrafted, and a door with a plain lintel 7ft. long. Two bases of pillars belonging to some building facing east remain, they are 6ft. apart, and 19½in. diameter. Several shafts and capitals of a very curious character lie near. This appears to have been the temple.

This site is situate close to the Roman road, which we have now traced to the plain, the famous road to Antipatris which Captain Anderson surveyed as far as Tibneh. From this point it continues along the ridge until it arrives near the village of 'Abud. Here it separates into two, the first passing along the ridge and leaving, just to the south, the tombs of which I shall shortly speak, descending a broad valley and continuing its course till it reaches the plain near Mejdél, south of Ras el 'Ain; the second descending at once from 'Abud, and passing Rantis and Dayr Allah, is lost in the plain. This branch evidently led from Jaffa, and formed one of the lines to Jerusalem, a second more direct existing farther south.

Nothing is more striking than the contrast between such a road and the modern Arabic highways. The Romans, as well for military as for engineering reasons, followed the ridges, avoiding the highest points, and gradually descending the valleys where necessary. The masterly

manner in which they are engineered in a country so difficult as is the mountain district of Judaea might give valuable indications for the construction of future roads, which might be simply reconstructions on the same line. An Arabic road meanders in a meaningless manner over hill and valley, now plunged between heights too distant for the advancing party to occupy easily, then climbing straight over a summit without any very apparent reason. The Roman roads were very carefully made, the rock being covered with a regular pavement of partly-dressed stones still remaining in places. This, with the existence of side walls in some cases, and of broken and effaced milestones, enables us easily to distinguish them. Of all roads they are probably, however, the worst in the country to follow in their present state, as, the pavement being gone, nothing but flat slabs of slippery rock is left, on which the horses stumble fearfully. Another of these roads, leading from Samaria to Kur, has also been recognised by its pavement and engineering. It is doubtful whether they were intended in all cases for chariots, though those in the plain show marks of wheel ruts in many places.

*Kh. Fakhakhr.*—Tombs of three kinds exist here. The ordinary Jewish tomb, with loculi running in from the sides of the chamber; the sunken tomb, with loculi on each side and a heavy block covering it above; finally, a species of tomb uncommon in the country we have gone through: they are cut in detached rocks, and consist of an arch 8ft. diameter and 6ft. deep, thus forming an alcove of a semicircular section open in front. The tomb itself is sunk in the floor of the alcove, and was covered with a slab; a niche for a lamp is generally found at the back. Fragments of sarcophagi, with lids and ornamented sides, exist near, and amongst the ruins is a building about 50ft. square, facing approximately to the cardinal points, and divided into three walks by pillars, the northern row consisting of four, the southern of two, with a partition wall occupying the position of the others. The pillars are 7ft. 6in. high, and 18in. diameter, with base and capital of very simple mouldings in low relief. The plan is rendered irregular by the addition of a small chamber at the south-east corner. In the walls, the foundation of which only remains, a stone was observed 2ft. 6in. long, with a draft of the ordinary dimensions, and a well-finished face. The entrance to the building must have been on the west, but there seems reason to conjecture that this may have been a small synagogue.

*Karāwa ibn Hassan.*—This village was originally named according to the Shaykh Sham el Tawil, and contains two large buildings, probably of Roman origin, the one being a reconstruction, the other an original edifice. The former is a fine tunnel vault, the door spanned by a lintel covered with defaced ornament, whilst drafted and undrafted stones, portions of a cornice, and on one stone an inscription which appears to be Cufic, are built into the outer wall indiscriminately. The second building, forming a modern residence, is a fine tower about 40ft. square,

the walls standing to the height of from 20 to 30ft, and the interior divided into six vaulted apartments, which are used as storehouses; these are all roofed in tunnel vaults, with semicircular arches of moderate masonry. The stones of the outer wall vary in length from 18in. to 5ft., and in height the same; all are surrounded by a boldly-cut draft an inch deep and 4 inches broad; the joints are well laid with a thin bed of good mortar, and the faces are finished plane. There is, however, no further indication of the date of the building, but no rubble such as the Crusaders generally mixed with their ashlar is visible in any part.

A third ruin exists under and beside the mosque, which is a large one, and there seems to me great probability of its having been a church, though subsequently used as a birket. It is now sunk below the surface, which no doubt has risen; it faces east and west, and is built of fine undrafted masonry with slightly projecting pilasters of classic profile; the height of the courses of masonry is very irregular, but the joints are finely cut. A cross wall of later date shuts off the east end at a distance of about 40ft., but a great vault, probably the apse, is reported to exist under the mosque. Fragments of cement adhere to the walls but form no part of the original design.

Within half a mile of this village, where Christian and Roman remains seem thus mingled together, Sergeant Black discovered a tomb, perhaps the most perfect, as a type, in the country, which is known locally as the Dayr el Derb (a meaningless name, probably not ancient). A well-executed frieze of Doric style, the tryglyphs separating rosettes all of different character, runs along the scarped face of the rock for about 50ft.; the porch is supported by two Ionic columns and two Doric pilasters of that peculiar type which Mr. Ferguson refers to Herodian times. The interior chamber contains three Jewish loculi at its further end, whilst two side chambers, one unfinished, were made in the second fashion, with sarcophagi parallel to the sides. The workmanship throughout is excellent, the chambers large and higher than usual; the walls of the porch are cut to represent drafted masonry, as in the Tombs of the Judges. The frieze is not quite finished, and is broken in the middle, whilst one of the side chambers is still imperfect, but with these exceptions a finer and more complete monument I have not yet seen in the country.

It is curious that where so much labour has been bestowed on the work not a letter of inscription was cut to commemorate the distinguished family for whom it must have been prepared; but this is always the case it would seem in Palestine, as in the instances of nearly all the tombs at Jerusalem already known.

*Kh. Kurkush.*—Hidden away in the wildest part of the hills, surrounded with deep ravines, and at some distance from any spring or ruin, Corporal Armstrong came upon another group of tombs, one being almost as perfect as, though smaller and less well executed, than the Dayr el Derb. The principal tomb has the same arrangement, but

is peculiar in having two recesses cut in the sides of the porch; the shafts of the central column are gone, the Ionic capitals remain, the side pilasters are seemingly unfinished, the door is ornamented with a semi-classic entablature in low relief. One peculiarity which is very puzzling is the appearance of a number of rough scrawls cut on pillars and walls in every direction; they represent camels, goats, cows, men riding donkeys, &c., all executed with the charming simplicity of outline generally observed in infantile productions; one would indeed pass them over as the work of wandering Arabs were it not for the fact that on each pilaster the seven-branched candlestick is cut in precisely a similar style. Nor do they bear any resemblance to the simple tribe marks of the Bedouin which occasionally occur over the rock-cut tombs.

*'Abud.*—To the north of Tibneh, on the top of the lower Judæan range, this little village stands beside the Roman road. It contains 400 Greek Catholics in a population of 500, and the cross is roughly painted with other ornaments over almost every door. A church of considerable size, which, though restored, was, as the Khuvi assured me, very ancient, stands in the centre, and at a little distance on a stony knoll above a fine tank full of rain water are the remains of a little chapel. The spot is called Barbára, probably in honour of St. Barbara, and is a shrine to which pilgrims come from all quarters. I was not, however, able to obtain any tradition as to the place.

Following the road north-west for about a mile, we pass the Mokata' 'Abud on the left, another system of very fine and perfect tombs. The porches of the two principal resemble in style that of the Tomb of the Kings at Jerusalem, but they are better preserved, and more profusely ornamented. In one chamber, especially, a hard cement or enamel lines the walls and roof, and is well painted in colours, which, though dimmed by age, are distinguishable still. The spaces between the loculi are painted in panels of red and white; black lozenges and red squares on a white ground are placed above, and a twist of white and yellow on a black ground runs above all.\* On the side where there are no loculi the wall is divided into alternate panels of white and red, but one of these remains unfinished, with three brush marks, showing that the painter had marked it for its proper colour, namely, a dark reddish maroon. The details will be best understood by my drawings, which will be finished, copied, and forwarded at the earliest opportunity. Arab tribe marks were remarked on the walls of the porch, but no designs like those previously noticed were to be found.

*Tibneh.*—A day was devoted to a visit to this interesting and important site. It is unnecessary to remind your readers that it was identified (though not correctly described) by Dr. Eli Smith with the Timnath Serah chosen by Joshua as his inheritance upon division of

\* A sketch of this painting was made by Major Wilson in 1866, and is now in the Office of the Fund.

the land. "Very marvellous," says St. Jerome, "is it that the distributor of the possessions should have chosen for himself so rugged and mountainous a spot" (Epit. Paulæ, § 13), and his words apply to Tibneh very aptly indeed. Of all sites I have yet seen, none is so striking as that of Joshua's home, surrounded as it is with deep valleys and wild rugged hills.

An oval tell with steep and regular sides forms the site of the town. On the south a gentle broad valley separates it from another hill, in whose northern face the necropolis<sup>†</sup> is excavated; a little plateau below the town stands at the head of this valley, and separates it as a shed from a second descending westwards. The Roman road passes between the plateau and the tell, and not far south of it stands, perhaps, the oldest and finest tree in Palestine.\*

This noble oak, which must be upwards of thirty feet in height, and beautifully symmetrical, is all the more striking to the sight after a residence in a country but sparsely scattered with olives and ballut of no great size. It is covered with foliage, the leaves being very small, and has received the name of Shaykh Taïm from the natives. A modern and an ancient well exist close to it, but the supply of water for the town must have been drawn from the 'Ain Tibneh, a fine spring, breaking out of a rocky channel, on the northern slope of the tell. If, indeed, political or other reasons rendered it desirable for the ruler of Israel to choose this portion of the country for his residence, no better spot than Tibneh could be found, for the country round is destitute of spring water for a considerable distance.

Of the ancient town of Tibneh nothing but a wall of drafted stones, three or four only visible above the surface, remains; the Arab village, which subsequently occupied the same position, being in its turn much damaged by age. The necropolis is, however, still visible, though almost every tomb has its porch so filled with rubbish that only the top of the little door into the tomb is visible. It might perhaps be interesting to excavate these tombs, but it is doubtful whether they are not all choked within as without, though we cannot positively affirm that some have not their doors still intact. Much time and labour would, however, be required.

I am aware that the tombs have been already examined, and that photographs of the ornamentation exist.† I, however, thought best to measure carefully the principal one, and to obtain dimensioned sketches of the details of ornamentation.

*Joshua's tomb.*—This is certainly the most striking monument in the country, and strongly recommends itself to the mind as an authentic site. That it is the sepulchre of a man of distinction is manifest from the great number of lamp niches which cover the walls of the porch; they are over 200, arranged in vertical rows, giving the appearance of an ornamental pattern, and all smoke-blackened. One can well imagine

\* See Photograph, Old Series, No. 107.

† Photographs, Old Series, Nos. 108, 109.

the wild and picturesque appearance presented at any time when the votive lamps were all in place and the blaze of light shone out of the wild hill-side, casting long shadows from the central columns. The present appearance of the porch is also very picturesque, with the dark shadows and bright light, and the trailing boughs which droop from above.

Entering the low door we find the interior chamber to be a square, with five loculi, not very perfectly cut, on three sides. The whole is quite unornamented, except by four very rough brackets, supporting the flat roof. A broad step or divan (for want of a better word) runs round the chamber, and the loculi are level with this; the depth of the centre we were not able to ascertain, in spite of excavation.

On becoming accustomed to the darkness one perceives that the central loculus at the back forms a little passage about 7ft. long, 2ft. 6in. high, and 3ft. 4in. broad, through which one creeps into a second but smaller chamber, 9ft. 3in. by 8ft. 1in. and 5ft. 5in. high.\* In this, opposite to the entrance, a single loculus runs at right angles to the wall, and a single niche is cut on the left for a lamp. Here then, if we accept the site, is the resting-place of the great leader, the stout soldier, the fierce invader, who first brought Israel into the promised land. It is curious that when so large a number of travellers come annually to Palestine so few visit a spot of such transcendent interest.

The simple character of the capitals in the porch, more fitted for the carpenter's work on the tabernacle than for work in a soft stone capable of being ornamented profusely with little labour; the rough execution of the interior, and the non-appearance of the later form of "attached sarcophagi;" finally, the lamps, which adorned the façade, and the absence of any ornamentation similar to that already mentioned in the other tombs, all seem to point to the probability that the monument here described may be as certainly looked upon as Joshua's tomb as may the Modin sepulchre, which I wrote on in a previous report, be considered the resting-place of the Maccabean heroes.

*Dayr Kala'ah.*—This important ruin is shown correctly on Vandelde's map, although he does not appear to have visited it. I am not aware that it has ever been noticed by other travellers. Standing on the summit of a precipitous hill, it is protected on three sides by deep and intensely rugged ravines, whilst on the east large quarries form a species of moat behind the building. A narrow path leads up to it on the west from a little plain, where no doubt the lands of the monastery lay, and passes under a projecting turret on brackets forming a species of machicouli. The building being erected on the slope, the western foundations are at a much lower level than those on the east, and a square building, with its floor at a level some 12ft. above the main part of the edifice, forms a projecting outwork on the less protected side.

The monastery faces, roughly speaking, east and west, but the wall

\* A plan was made by Major Wilson.

of the chapel has a bearing of 294 deg., which is not less in error from the east line than is the Cathedral of Cesarea. The plan of the building shows a large central hall, about 80ft. in length, having the chapel (which was entered from it by a side door) on the north and a row of buildings on the south. These latter appear to have been chambers or dormitories of various sizes, the walls and even the roofs remaining in some of them. The most eastern, which is divided into two cloisters by a row of piers supporting round arches, I conjecture to have been the refectory, the remainder the cells of the monks.

The tower, some 30ft. square, is immediately east of the great hall, and is divided into four chambers, the roof of one still remaining built in rubble work, with a tunnel vaulting. Above these there was probably a second story.

North of the tower are three large reservoirs, cut in rock during the operation of quarrying for the convent itself, and subsequently completed by the building of massive walls of rubble, faced on both sides with ashlar work, and by an arched roof, the sloping bed for the haunch stones being still visible. The longest of the three is 112ft. by 34ft. breadth. Thus the roof was a work of no little magnitude.

Adjoining the reservoirs on the west side, just north of the chapel, there appears to have been another row of cells, and possibly vaults beneath. These are, however, so much ruined as scarcely to be traceable without excavation.

The details of workmanship and ornamentation leave little doubt that this fine monastery is to be ascribed to the same date as the Golden Gateway at Jerusalem, or the Church of Kalb Louseh, described by M. De Vogüé as belonging to the 6th century. Thus it may perhaps become of great importance to the archæologist, and more especially so if any mention can be found of it either in Eusebius or in Procopius. Mr. Fergusson has traced the gradual history of this early Byzantine style, and M. De Vogüé has shown how slow and gradual the development was in the East as compared with the rapid growth of the Romanesque in the West. The very remarkable architectural feature of a cornice deflected to follow the semicircular arch of a window or door is insisted upon by Mr. Fergusson as evidence of the early date of the Golden Gateway. Here, within a day's journey of Jerusalem, the same feature occurs in the Chapel of Dayr Kala'ah, together with other details of structure not less characteristic. The cornice remains almost intact, though much worn by weather, on the inside of the east chapel wall. Its details resemble those of the Golden Gate, with one exception—the cross appears in every possible place. A broken base lies amongst the rubbish, and its profile I measured carefully for comparison with others of known date. The semicircular arches have already been noticed, and form another important evidence of date. They are all built with keystones. The doors are, however, invariably surmounted by flat lintels, on which the cross is cut in low relief; generally it is placed on a tablet after the classical manner, but in one case

the three hemispheres, which are the conventional method of representing Mount Calvary, form a foundation on which it stands. Above each of these lintels is a very flat relieving arch, formed in some cases of two stones hollowed slightly beneath, thus throwing the superincumbent weight on the jambs of the door. The same arrangement is found on a larger scale at the Double Gateway of the Haram at Jerusalem, where a cornice similar to that of the Golden Gate exists.

The ashlar work of the whole building is finely proportioned and the joints are beautifully laid. The exterior walls have drafts on all the stones, but none are found on the interior. The drafts are different in character from any previously noticed, being about 10in. broad and 2 or 3 deep. The central raised face is often only roughly finished, and the draft itself is not always regular in width or depth. The largest corner stones are 6ft. long and 3ft. high, but the average will be about half these dimensions. On the stones of the interior a number of large rudely-cut marks were visible, but different from the ordinary mason's marks, being placed irregularly on the stone, often two or three together.

Such are the main points of interest concerning Dayr Kala'ah. A thorough search in Procopius ("De Edificiis Justiniani") and in Eusebius ("Onomasticon") is most desirable, as this building must have been of sufficient importance to be mentioned among the works of either Constantine or Justinian, and its date once identified, the evidence of its architectural details would be of the greatest value in the settlement of certain disputes on this style in Palestine.

*Dayr Sam'an.*—North-east of the ruin just mentioned is a second, evidently of similar character, but in a far less perfect condition. The foundations alone are traceable, and show the edifice to have been less extensive and less magnificent. It has, however, one peculiar feature in a large rock-cut circular bath, 14ft. diameter and 2ft. 7in. deep, three steps leading into it from the surrounding platform.

*Dayr Arrabeh.*—Farther south, and not far distant from Rantis, a third convent exists, the walls standing to the height of three or four courses in many parts. A central chapel with a single apse, surrounding chambers, and underlying vaults with semicircular arches, are here found again, but one difference is remarkable, none of the stones are drafted. The doors are surmounted by flat lintels, having various geometric patterns cut upon them, the cross being invariably found in the centre. A large birket exists on the west side, and two cisterns in other parts. It is remarkable that in every one of these sites no other supply than that obtained from rain water can have existed, although there are often springs a few miles off. The fathers seem to have chosen the most deserted and unfrequented spots for their retirement, possibly from other than purely religious motives, as the villages of the wild heathen must always, as now, have been placed in sites where water was most easily attainable.

*El Duayr.*—This ruin, situate near to Dayr Kala'ah, is the smallest

and least important of the four, but is constructed on the same plan. The entrance door to the chapel is very small, and surmounted by a flat lintel. In the other three cases the east door is entirely destroyed as in the two first, or fallen in as at Dayr Arrabeh.

*Nebi Yahyah.*—This curious ruin, more perfect than perhaps any in Palestine, has already been often visited and described. A photograph was taken by Captain Warren, and it is mentioned in one of Mr. Drake's reports. In visiting it for the purpose of making a plan, I found the details to be better preserved than I at first supposed, and took accurate measurements of them all. The whole is in a debased classic style, and the work is no doubt Roman.

The peculiar position makes the original use of the building doubtful, as it neither faces south like a synagogue, nor east like a temple. The bearing of the length of the porch is 253°, so that it faces, roughly speaking, north.

*Nomenclature.*—Although the nomenclature of the Ordnance Survey is not, properly speaking, my own department, yet, as it has during Mr. Drake's absence been entirely in my hands, I may perhaps be allowed here to trench on his ground in a few remarks on the subject.

The method which I have employed is only possible with men to a certain extent acquainted with the language, but appears under existing circumstances to be satisfactory. A native guide or trustworthy attendant is attached to each surveyor. Every name is collected and written in English on the spot, the native in each case being instructed to listen to it. On the close of every day, the names are pronounced in his hearing, in mine, and in that of our head servant, who is able to read, write, and spell correctly. Anything wrong in accent or pronunciation is thus immediately corrected, and all the names written in Arabic, from which I afterwards transliterate them. The final transliteration will, however, depend only on the Arabic letters.

I am convinced that this is, perhaps, the only possible method of proceeding. It was suggested in England that the natives or shaykhs should write the names, but this I found was simply impossible, because not one in a hundred could write at all, and those who could were not to be relied upon for correct spelling. We must remember that even in England the names of the Ordnance Survey are collected with difficulty, as often nearly a dozen different spellings of obscure names will be obtained. When we consider the far greater ignorance of Arab as compared with English peasantry, and the various inducements which fear and hatred of strangers present to lead them to a false answer, it will be seen that to obtain a correct nomenclature is by no means an easy task.

The main difficulties are four. First, that either from a wish to mislead strangers, or from a desire to conceal their own ignorance, or from fear of consequences, or some similar motive, an entirely fictitious name will often been given. Experience alone, and the testimony of

several witnesses, enables us to escape this danger. Secondly, a number of names may be missed by not asking for them, names of trees, plots of ground, small valleys, &c. The only precaution is to instruct the guides to give every name they know in a vicinity, not waiting to be asked. Thirdly, certain names, though undoubtedly genuine, are known to but a few, generally old men. These may very often be obtained accidentally, and are then at once hunted down; but it is difficult to feel certain that *all* are obtained. A very long residence in one district alone would show. Some of them may be important, but the majority are very likely only to be classed with such English names as "Giles's Meadow," "Oak-hill Bridge," &c., &c., which are of no historic value.

The fourth difficulty is in local mispronunciation, which varies considerably, as in England. Thus the Bedouin convert *k* into *g*, *e.g.*, Gagun for Kakun; in other places the letter *kaf* is pronounced *chaf*, and Kefr becomes *Chuffer*, this word being in other districts Kafr or Kufr. These are but instances of innumerable difficulties which have to be overcome, and which require a considerable knowledge of Arabic to understand.

That an immense number of names quite unknown before have been obtained; that in the last month's work Vandevelde's map shows 12 to our 120; that nearly all of these are undoubtedly genuine and correctly placed, is a good deal to say, without committing ourselves to the statement that every name has been recovered, although probably the percentage not collected is extremely small. From experience we are led to conclude that every very prominent object has a name—all villages, rivers, springs, and principal wells; very large trees here and there, mountain tops, pieces of ground of peculiar character, and plains. The principal wadies have, at least, one distinctive name, and opposite to every village the name of the village is applicable; smaller wadies rarely have names. Every ruined site has a well-known name.

As an instance of the manner in which a well-known name may be overlooked, I may instance Bayt Bezzin. This name entirely escaped Mr. Drake, and I only heard it casually in conversation. On a special expedition I obtained the name in various ways from nearly a dozen people. Yet the spot to which it refers, no doubt an ancient site, shows no other marks of ancient work than a large cistern and a few rock-cut caves.

*Water Supply.*—In the study of Palestine there is no question so important as that of the water supply. Everything now depends and always has depended on the amount of water to be found at any place. The question of the ancient fertility of the country, which has often been so easily settled without reference to existing facts, depends also upon this. The Ordnance Survey is a complete answer on the subject. Many fine springs have been discovered in parts supposed to be desert, and an immense number of ancient reservoirs has been marked upon

it. Had the water supply been naturally more abundant in those times than it now is, such reservoirs for collection of rain water would not have been made, and the investigation of the geological condition of the country forbids us to suppose that springs can ever have existed in certain districts. In the greater part of the country lately surveyed the strata are entirely impermeable, and all the water is carried off on the surface. At Mukhalid, however, two springs are found close to the sea, the water being mixed with the salt wave water when the sea is rough. This is accounted for by supposing that the same impermeable bed here underlies the soft tertiary sand deposits of the shore cliffs. Thus the position of springs here, as in all cases, is of the greatest geological importance.

We come, therefore, gradually to the conclusion that the natural resources of the country, though little known, are also little changed. On the other hand there is constant evidence that the amount of ancient cultivation was originally far greater than it now is. The terraced hill sides, often only half ploughed, show laborious energy which is now unknown. Amongst the wildest brushwood of Carmel and the stony hills of the Beni S'ab, we come again and again upon vineyard towers of huge undressed stones, upon old vine terraces ruined and broken down, upon wine-presses and oil-presses of unusual size. It may therefore be concluded that it is rather to the negligence of man than to any deterioration of soil or climate that the desolation of Palestine is due, a fact strengthened by the rich fertility of the country near Beyrout in a soil poor by comparison with that of Carmel or of the southern plains.

*Meteorology.*—The 23rd, 24th, and 25th days of May in this year were the hottest experienced in Palestine for many years. At our camp at Bidyeh the maximum in the shade of the observatory read 106·8 degrees Fahrenheit, against 103 degrees, the greatest heat of last year. A steady east wind blew gently all day, and dropping towards the end of the 25th a dead calm ensued. In the afternoon I was waked by a rushing sound, and perceived a whirlwind, the largest I ever witnessed, quickly rolling towards us down the olive groves, licking up dust and leaves and breaking the small boughs. It passed within a short distance of the tents. A horse and a dog belonging to the expedition died simply from the effects of heat and of drinking too much water. All the natives suffered dreadfully, especially as we moved camp on the first day and had a long march. We Europeans did not feel it excessively, principally from our caution as to not drinking during the day. In the plains two or three men were killed by sun-stroke or by thirst. The same heat was felt from Egypt to Constantinople. At Gaza the maximum in the observatory read 116 degrees Fahrenheit. At Beyrout the silkworms were destroyed. All over the country men and beasts suffered severely.

Several phenomena were noticeable this summer in the plains. When the west wind blew, a heavy mist rose in the morning from the plains,



1  
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LARGE  
DRAFTED  
STONES



Claude M Conder  
Lieut R.E.  
16.5.73





leaving everything clear at about ten a.m. At about noon, or rather earlier, a sea mist began to come up, and often rendered the observation of objects on the shore line almost impossible.

The mirage was occasionally very trying, but seems to be less noticeable on days when the wind is in the east. I am led to suppose that absolute temperature alone does not affect it, but that a certain amount of damp is required in the air as well. Thus on one day the east wind in the morning gave less mirage than the cooler west wind after noon.

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## XV.

### JERUSALEM TOPOGRAPHY.

P.E.F. CAMP, BLUDAN, *1st August, 1873.*

I AM at length able to send home the long-deferred plan of rock levels of Jerusalem, which has been from time to time one of the principal points to which my leisure moments have been devoted.

It was Capt. Warren who first pointed out the absolute necessity of discovering in every case the depths below the surface of the rock, and of referring them all to one fixed datum, the level of the sea. In the study of the ancient topography the original appearance of the ground is the first consideration, and although a certain amount of soil must always have existed, and is mentioned as so existing by Josephus, still the ancient surface must have conformed far more closely to that of the rock than it does at present.

For these reasons, almost the first thing to be done in following out Capt. Warren's discoveries was to ascertain the lie of the rock wherever possible. This we are now able to show in about 200 places, thanks to Mr. Schick, who, in his professional capacity of architect, had measured the position when sinking foundations for houses in every quarter of Jerusalem. Being so numerous and evenly distributed, I was able, with the aid of the contours of the surface given in the Ordnance Survey, and with those levels already fixed by Capt. Warren, to extend the system of contours, which he has made for Ophel and the Haram enclosure, over the whole extent of the present city.

By the help of this map we shall be able to calculate within a few feet the maximum depth to which it will be necessary to go in order to reach the rock, and to see how labour may be most easily economised. The comparison of the rock and surface contours shows that the depths will never approach that of the first mines, and may on an average be taken at 20 to 30ft. The Haram stands on a steeply sloping ridge, the Ophel wall hangs over a deep valley, and the great bridge spans another. Thus Captain Warren's work lay in the parts of Jerusalem where work was most difficult and costly. Future excavations would

only have to be made in such parts of the town as preserve at the present day more approximately their former condition.

Thus, although excavation at Jerusalem has been for awhile suspended, the year was not without valuable work. We have a basis now on which to form a judgment of the best way to attack in future the remaining points of interest which no doubt await discovery.

Several new and interesting points at once suggest themselves on an inspection of the map, and to show these better I send a reduced shaded sketch of the original rock site of the town. Reading the famous passages of Josephus by the light of this new map one cannot but be struck with the accuracy of his descriptions.

Jerusalem, he tells us, stood on two hills, the one opposite to the other, divided by the Tyropœon. That crest (*λοφος*) which supported the upper city was much higher and longer. The other, on which the lower was built, was smaller, and rising to a peak (*αμφι κυρτος*), a description mistranslated "horned like the moon." Besides the Temple hill there was a fourth directly north of it, and divided by an artificial ditch from it, and from Aera by a broad valley, which was filled up by the Asamoneans when they lowered the height of some part of the latter hill which overlooked the Temple.

Referring to the plan we find this description fully carried out. The modern Zion, a large flat-topped hill surrounded with deep valleys, and having a level of about 2,550 to 2,500ft. above the sea. North of this and separated by a broad and very deep valley running down to Siloam, as Josephus describes the Tyropœon, is a much smaller hill, whose summit is not over 2,480, and which, whilst absolutely lower, would appear much more so, because the whole site is, as it were, on an inclined plane, and because the height from the summit of the former to the bottom of its surrounding valleys is far greater than that of the latter.

The Temple hill, already known, will be seen to be separated from a fourth on the north, separated in its turn from the Aera knoll by a broad valley which runs out at the Damasens Gate. We can have but little hesitation in identifying this with the hill Bezetha of Josephus.

Not only is the general description carried out, but several of the details also. The Temple hill was defended, we learn, by a valley and a ditch on the north, cutting off Antonia from the hill Bezetha. This valley Captain Warren traced running north-east and south-east, and coming out just north of the Golden Gate. The rock contour, 2,420 near the north-west corner of the barracks, attests the existence of a narrow trench separating the northern hill from the rocky scarp on which the barracks stand. It is more than probable that the Birket Israel in the middle of the valley, to which the expression of ditch has hitherto been supposed to allude, formed no part of the original design, and that the real ditch thus discovered was cut in that part where no natural valley existed. The rocky scarp south of this, now fixed on the

north, south, and east, will be immediately accepted by many as that scarped rock upon which Josephus tells us the fortress of Antonia stood.

One other very important and curious point remains to be noticed. It will be seen that a narrow ridge runs north and south, immediately east of the Tower of David, and separates as a shed the broad head of the Tyropœon from the western valley of the Birket el Sultan. The former valley deepens very suddenly, and in the line of the church of the Holy Sepulchre its lowest part is more than 100ft. below the crest of the modern Zion.

This is a very important indication, Robinson, Williams, and De Vogüé, with, in fact, almost every writer on Jerusalem topography, have drawn the north line of Josephus's first wall from the Tower of David to the west Haram wall. The great question to be settled is at what point between these limits the Gennath Gate and second wall were to be found. Now no point could be so likely as that marked by the ridge along which the wall would run on ground commanding all without it, and the sudden fall and unsuspected breadth of the Tyropœon valley make it more than doubtful that the line should be carried farther east to cross the valley, when a ridge without the *enceinte* would of necessity command the whole length of the fortification.

Small discoveries continue to be made at Jerusalem. On the cliff in the immediate neighbourhood of Jeremiah's Grotto are a number of rock-cut channels running towards the aqueduct of the royal cavern. These are of importance for two reasons: first, as showing that a part, if not all the water in the great aqueduct, was supplied by the surface drainage; secondly, because this abrupt termination seems to show that the present gap between the scarped rock at Jeremiah's Grotto and the so-called north-east angle of the city wall above the royal caverns is a subsequent alteration. Probably the quarries extended the whole distance, and were cut through to allow a command for the fortifications, which would otherwise have been impossible.

Immediately north of this point other remains of some interest have been discovered by Mr. Schick. There is a rock scarp running east and west, marked on the Ordnance Survey between the contours 2,419 and 2,409, close to a road north-west of Jeremiah's Grotto and near an old cistern. In this scarp a chamber was found square cut in the rock, without loenli, and with two crosses in red paint on its walls. It has been subsequently used as a tomb, and the ground is full of bones and skulls in its neighbourhood. Tracing the scarp, Mr. Schick found indications of piers supporting arches running transversely and parallel to the rock. Near the cistern vaults are said to exist, and in an excavation in the neighbourhood some large stones about 2' 6" x 2', and the foundations of a pier of masonry, are laid bare. There can be no doubt, it would seem, that a large Christian building here awaits examination by the Fund. The only question is what it can be.

The site of the martyrdom of St. Stephen, though now without the

gate (Bab Sitti Miriam) which bears its name, was placed by a very ancient tradition about a furlong without the Damascus Gate. In the middle of the fifth century the Empress Eudoxia erected a church here in his honour, in which St. Saba was buried (Quaresmius ii. 295). Antoninus, of Piacenza, in sixth century, St. Willibald in eighth, St. Bernhard in the ninth, all agree in giving the same position to the site. In the twelfth, the church destroyed by the Arabs was rebuilt by the Crusaders on the same spot. The gate was then known as Porta S. Stephani Septentrionalis. The church was on the west of the great north road, all pilgrims passing immediately by its door; it had a monastery attached, and opposite to it on the east of the road was the Asnerie. "La solait jesir li asne et li sommier de la maison de l'Hôpital pour ce avait à nom l'asnerie" (La Citez de Jherusalem). The church the Crusaders themselves destroyed in 1187, but the Asnerie remained, and was used as a khan by the Saracens, when all traces of the other buildings had disappeared under a dunghill.

From its position and distance from the walls this newly-discovered building may possibly be the remains of the Crusading Asnerie. Ruins of the church may still perhaps exist on the west side of the road beneath the great depth of modern rubbish.

The repairs now going on in the Kubbet es Sakhrâh have given two interesting additions to our knowledge of the place: first, the Cufic inscription on the beams, mentioned by Dr. Chaplin in a late number of the "Athenæum," and sent by him to the Fund; secondly, the uncovering of the base of two of the pillars of the octagon. I have already pointed out in a former report that the "stools" on which the pillars were supposed to stand, and upon the character of which an architectural argument has been partly founded, were nothing more or less than slabs of marble built round the shaft and hiding its base. This is now finally proved by their removal, and a base is discovered within, apparently not belonging to the shaft, as a couple of bands of lead, giving a thickness of  $1\frac{1}{2}$  in., are introduced no doubt with a view of equalising the height of columns of various sizes. From this it would appear that all the pillars of this building are torn from some older edifice, perhaps from more than one, dating probably about the fourth century, and have been placed in their present position by those who built the dome.

The only other work of interest now going on in Jerusalem is the clearing out of the magnificent vaults of the Muristan. Huge piers of stones with a rustic boss are traced down to their rock foundations in the Tyropœon. There are a series of rock-cut steps in part, which seem probably anterior in date to the buildings. Straight joints and other indications point to two if not three distinct dates of building. Mason's marks are found only on the finest and best finished stones. The work, which is a costly and important one, will not be completed for another year.

CLAUDE R. CONDER, Lieut. R.E.,  
*Commanding Survey Party, Palestine.*

## LETTERS FROM DR. CHAPLIN.

JERUSALEM, Aug. 1st, 1873. :

SIX or eight more rafters of the roof of the outer corridor of the Dome of the Rock have been found to have Cufic writing upon them. The words appear to be the same on all, but some are partially obliterated. I send you a copy. The writing appears to be a direction to El Saïdy, by order of El Muktader Billah. Probably this timber was sent down from the north, like that used in the first temple. El Saïdy seems to have been a Mohammedan Helena in a small way. There can hardly be a doubt that this roof was either made or repaired by order of Jafr, and a discovery that I recently made renders it certain that either there was no roof there before, or that it was not on the same level as at present—namely, that there is a very old carved wooden cornice still running round the building in the space between the ceiling and roof of the outer corridor on the inner wall of the latter, just above the ceiling. The accompanying diagram will explain its position. It cannot, of course, be supposed that an elaborate cornice would be constructed to be out of sight.

Another point which I do not remember to have seen noted is that the present cornice below the ceiling rests against the mosaic *and cuts the tops of the letters*, and must therefore be of later date than these.

The reasons which lead me to think it possible that the outer corridor may have formed no part of the original building are these:—

1. The stumpy appearance of the whole building, the base being (at least to my unprofessional eye) too broad for the height.

2. The statement that the Kubbet el Silsileh was the model for the greater Kubbet, which would be only partially true if the latter were originally built of its present form.

3. Such glimpses as we have occasionally got of the masonry of the outer wall seem to show that it is probably of later date, and

4. The certainty that now exists that the roof to which these inscribed rafters belong is of later date than the wall over the arches which form the outer boundary of the inner corridor, and the absence of evidence (so far as I have been able to discover) of a roof having preceded it.

The Cufic inscription, of which I enclose a copy (No. 2), may throw some light upon this question. It is from a stone on the inner surface of the outer wall, and forms part of the ornamental band which runs round the whole building on a level with the tops of the doors. If the date of this inscription is later than 72 of the Mohammedan era, it would afford a strong presumption that the wall is also later, there being no indication of its having been subsequently put in.

I send you also a bit of Greek inscription from a slab from the coping of the parapet of the outer wall of the Dome of the Rock.

More than twenty mortuary chests have been discovered in rock tombs lately opened on the Mount of Offence. I forward plans of the tombs, and copies of the writing on the chests. The latter are neatly executed,

some being plain, others ornamented, but none so elaborately carved as that figured on page 494 of "The Recovery of Jerusalem." Some have flat, others raised lids.

The absence of Christian emblems, and the presence of Hebrew characters, is interesting. I have sometimes questioned whether some of these chests, about whose history so little is known, may not contain the bones of Jews, transported from other lands by pious friends, but I do not remember to have seen Hebrew characters on them until now. On the other hand, the inscription No. 1 might well enough pass for 1610 A C.

They all contain bones, which fall to pieces on being touched. Entire skeletons *in situ* were also found in several of the loculi, but not a vestige of clothing or (according to statements made to me) an ornament of any kind.

THOMAS CHAPLIN.

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JERUSALEM, Aug. 6th, 1873.

By the Austrian mail of last week I forwarded to you copies of several inscriptions of some interest, and in the hurried note which accompanied them omitted two things.

1. I forgot to mention that perhaps Mr. Palmer and Mr. Drake have already taken a copy of the Cufic inscription from the outer wall of the mosk, and that I sent a copy to Mr. Drake two mails ago asking him about it.

2. It quite escaped my memory (it is only with great effort that I can give any time to these things at this sickly period of the year) that the bronze of the doors of the mosk (Dome of Rock) bear inscriptions with the date 216. This of course precludes the possibility of Jafr having been the first to make a roof over the outer corridor.

The top of the outer wall ought to be examined, but it is not easy to get at it. Possibly next week I may be able to see what can be made of it.

I cannot find that anything is written in the Arabic histories about Jafr having repaired the Dome of the Rock, but others, better acquainted with the subject, and with more time at their disposal than myself, may be more successful in their search.

My Arab friends read the inscription from the beam differently from what I did. According to them the line would run, "To God El Saïdy, mother of El Muktader Billah."

THOMAS CHAPLIN.

#### NOTE ON THE ABOVE LETTER.

We are indebted to Prof. E. H. Palmer for an accurate translation of the Cufic inscriptions lately found on one of the beams in the roof of the outer corridor of the Dome of the Rock. The inscription was copied by Dr. Chaplin, and also by Mr. Schick, and runs as follows:—

"In the name of God. Grace from God to the servant of God, Jäfer

el Muktader Billah, Commander of the Faithful—may God spare him to us. According to the order of Essaiyideh (may God aid her), and it was performed by the hands of Lebid, a Freedman of Essaiyideh, and that was in one and . . . .”

Unfortunately the inscription becomes illegible at the date; but Prof. Palmer states that he has found in an Arabic historian an account of the restoration and repairing of all the Mosques and Masjids in the Empire, by Ali Ibn Isa, vizier to El Muktader, in the year of the Hejira 301 (A.D. 913), to which this inscription probably refers.

We hear from Dr. Chaplin also that the aqueduct from Solomon's Pools is now restored, that the fountains in the court-house, Makhama, the Kas in the Haram, the Birket el Naranj, and the Bab el Nazir, are all running over with fresh water.

The repairs in the Haram are proceeding steadily, the Sultan having sent £30,000 for expenses, under the direction of an Armenian builder from Constantinople. In the outer wall of the Dome of the Rock has been found a portion of a Latin inscription, on marble, but in a fragmentary state.

Lieut. Steever, of the American Expedition, has informed Dr. Chaplin that he could get no pottery in Moab like that in the Shapira collection.

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### THE SAMARITAN STONE AT GAZA.\*

My curiosity was first stimulated in searching after inscriptions by observing the extraordinary amount of energy exhibited by M. Ganneau, who visited Gaza about three years ago. I accompanied this gentleman to several interesting parts of the town, and assisted him in procuring a few Greek inscriptions. We also visited the same spot where the stone was discovered, which is distant from the town about a mile, and half a mile from the sea-shore. It has now been in my possession about a year, and was found in one of the numerous sandpits where excavating is carried on by the natives to obtain stone for building purposes.

About a year ago, passing by the same spot, I questioned some of the labourers then at work about stones bearing inscriptions, &c., and was informed that a few days before three of this description had been found. After making further inquiries I succeeded in finding out to whom they had been sold, but having to act very cautiously, in order not to excite suspicion, I regret that I was obliged to delay the matter too long; and upon opening the question about the stones the owner coolly told me that he had *scraped* the two largest! and the other, I suppose, not being large enough for the purpose required, was thrown aside, to share the same fate at some future time. However, after some difficulty I succeeded in getting it; this is the whole history of the stone.

\* See *Quarterly Statement*, July, 1873, p. 118.

About two months ago three marble pillars were discovered in one of the sandpits before mentioned; they are all of the same size and architecture. A drawing of these might likewise be interesting. About a month ago I also found in the town a lamp similar to the one found in the Pool of Bethesda, with this exception: at the broadest end in bas relief is something not unlike a serpent's head.

Many curious seals are at times found here and about the district of Gaza. I might send you sealing-wax impressions of some of these if you think they would be of any interest. I shall always be very glad to keep you duly informed of everything that may be found at Gaza, and supply you with copies, &c.

J. G. PICKARD, *Gaza*.

## STATE OF THE RUINS OF BAÄLBK.\*

*Extract from a detailed report by Lieutenant Conder, R.E.*

IT being necessary, during the extreme heat of summer, to suspend the outdoor work of the Survey for some weeks, and to move the camp to the cooler mountain region of the Lebanon, the Committee requested Lieutenant Conder to devote some portion of the time spent in that district to a careful examination of the ruins of the magnificent temples of Baälbek, which are reported by travellers to be in a most precarious condition, especially the group known as the "Six Great Columns." Letters on the subject have appeared during the last two years in the *Times* and other papers from Mrs. Burton, Mr. Julian Goldsmid, Mr. Crace, and others. This "vacation task" Lieutenant Conder has undertaken with energetic enthusiasm, and he has now sent home a report, dated August 22, giving most careful technical details of the defects, and consequent risks of each column of the "great" and "lesser" temples, with such dimensions and other information as will make it a valuable document to any who may desire to ascertain whether it be possible to delay the impending destruction of these splendid monuments. The subject not being directly connected with the work of this Fund, the Committee do not propose to print the whole report, which, however, will be made available to those specially interested. They think, however, that the following extracts will prove interesting to many subscribers. Lieutenant Conder says:—

"My attention was directed to three principal objects—1. The condition of the key-stone of the great lintel of the Temple of Jupiter. 2. The condition of the peristyle of the same. 3. The condition of the six remaining columns of the Great Temple.

"1. The eastern doorway of the (so-called) Temple of Jupiter is 21ft. wide, and 42ft. high in the clear. The jambs are huge pilasters, in three courses, containing interior staircases. The lintel consists of three

\* The report will be found at length, and fully illustrated, in the *Builder* of October 4.

stones, the central key-stone being slightly tapered, as in an arch, and apparently once held in place by metal clamps. The stone is a hard, compact, non-fossiliferous, white limestone. I have taken its specific gravity roughly at 2.5 in order to approximate the various weights, but send home a specimen to allow of their being more exactly determined. The key-stone measures 10ft. 10in. in height, 12ft. in thickness (front to back), and has an average breadth of 6ft. 5in. It must, therefore, contain approximately 858 cubic feet, which will give a weight of about 60 tons. . . . It has slipped down rather more than half its depth from its original position, and on the south side only about one quarter of its side bears against the other block, which is broken away below. A wall of roughly squared stones (of about a foot cube), in mortar, has been built under the key-stone by the Turks, and appears to be a suitable and sufficient support. The only objection to be made to it is that the soffit of the stone is thus covered, and the eagle invisible. Should it be proposed to raise the lintel to its former position, the superincumbent stones, each weighing about 20 or 30 tons, must first be removed. I did not observe any indication of present danger, except from the jar which the fall of the smaller stones of the cornice might give. The other blocks of the lintel appear to be safe. The fall of the key-stone is probably attributable to the removal of the metal clamps, and to subsequent shocks of earthquake.

"2. *The peristyle.* On the north side nine columns remain, with roofing; on the west, three, with only the entablature; on the south, four, and two of the fluted inner row which ran from the antæ and in front of the temple on the east. Judging from a fallen column the heights are as follows:—

			Ft.	In.			Ft.	In.
First stone	...	...	22	5				
Second "...	...	...	14	11				
Third	...	...	11	3				
			———			Shaft	...	...
						Capital	...	...
						Base	...	...
							48	7
							5	11
							3	4
							57ft. 10in.	

The diameter at the base is 5ft. 7in., and at the capital 5ft. The intercolumniation is 8ft. 10in., and the width of the peristyle, in the clear, the same."

Lieutenant Conder then gives the dimensions of the entablature, and calculates the weight of that and the roofing as equivalent to "a crushing weight, on each pillar, of 105½ tons, or 4 tons per square foot." "The centre of gravity of this weight is easily calculated, and will be found to pass through the centre of the pillars." He then goes on to describe, in detail, the condition of each pillar of the peristyle, by aid of a figured plan. Almost every one of them has been much injured both by man and earthquake, as well as by natural decay, and most of them have been excavated at the base, by the Arabs, for the sake of the metal pin, which has been abstracted from the centre.

The general conclusion is arrived at that the two external columns on the north side are in a dangerous condition,—“the next to them are cracked and overloaded, and the remainder, though at present safe, would suffer in the same manner, from unequal loading, on the fall of the outer. The condition of the entablature is also unsafe.” Lieut. Conder also calls attention to the risk to the columns at the south-east angle of the temple, caused by the Saracenic tower built over that portion, and which causes a serious overweighting of the lower structure. He suggests the removal of this later superstructure, but allows that it would be a work of difficulty.

Perhaps that part of the report which treats of the condition of “the six great columns” will be deemed most interesting, as their danger is also more imminent. Lieut. Conder describes the causes of danger with great care, and in detail he says:—

“The diameter of these columns is 7ft. 6in. at the base; the height (according to Murray, who gives the diameter and entablature correctly) is 75ft. including base and capital.” The entablature is (in design) exactly similar to that of the former temple, and its centre of gravity is at a distance of 3ft. 3in. from its north side, thus bringing its greatest weight on the south side of the columns. “The columns are exposed to the full force of the northern and westerly gales, and have suffered far more on these sides. They are shattered from top to bottom, and are flaking off rapidly. They appear to have been subjected to the effects of frost as well as of rain and wind.”

Lieut. Conder then enumerates the columns, commencing from the west end of the group:—

- No. 1.—Has two pieces excavated just above the base; one to a depth of 2ft. 3in. A piece flaked off 10ft. high and 1ft. deep, and a large piece containing about 70 cubic feet cracked off the base.
- No. 2.—Has an excavation 2ft. 6in. high, 2ft. deep, and about 3ft. wide; all three stones of the shaft are shattered, and flaking on the north side.
- No. 3.—About 56 cubic feet cracked off the base block. A piece about 2ft. thick cut out across the base of the shafts, and large fragments peeled and flaked off.
- No. 4.—This pillar is very infirm. Large flakes have fallen off, and the cracks show that more will follow. At the bottom only about half the diameter is left.
- No. 5.—Has a large piece chipped off the base, and very serious fractures in the highest and lowest blocks of the shaft.
- No. 6.—Is the most “shaky” of the group. Large pieces have been cut out above and below; and “underneath the base a stone has been abstracted measuring about 40 cubic feet.” This column is likely to fall in the first great storm, and to bring down No. 5 with it.

Lieut. Conder gives many additional details and measurements, accompanied by explanatory diagrams. But his report will be published with

his illustrations in *The Builder*, to which periodical we may refer such of our subscribers as may be more specially interested in the question of the possibility of preserving these grand remains to another generation. The subject is, strictly speaking, outside the objects of the Fund, but, opportunity offering, the Committee directed the attention of their surveying officer to the subject, and requested his report, feeling that the matter was urgent, and that, having so competent an officer on the spot, they might, at small sacrifice, render an important service to archæology and art.

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#### NOTES FROM MR. CL. H. GREEN ON THE GEOLOGICAL SPECIMENS SENT HOME BY LIEUT. CONDER.

I HAVE at last found time to look over the geological specimens which Lieut. Conder has sent home from Palestine. The parcels are numbered up to 42, but there are none of the numbers 3, 9, 11, and 13.

Fourteen of the specimens contain fossils. Without help and books of reference, which I cannot get here, I cannot determine these; some are certainly of Cretaceous, and some probably of Jurassic or Oolitic age. When I am in London, towards the end of the year, I dare say I shall be able to give you a more detailed description, and the names of some of these fossils; others which are imperfect, or only in the state of casts, will scarcely be determinable specifically.

Ten of the parcels, Nos. 1, 6, 27, 28, 29, 30, 31, 33, 35, and 42, are specimens of volcanic lavas and ashes. With one exception, No. 42, which is a trachyte, and not taken from a rock or place, all the lavas are doleritic in mineral composition; their structure also seems to indicate that the outpourings were subærial, or, if they flowed under water, that it was of no great depth.

There are two specimens of sedimentary beds, from volcanic localities. No 2, a red calcareous sandstone from Shayk Iskander, and No. 32, consisting of thin laminæ of similar sandstone and green marl, with layers of fibrous carbonate of lime, from Ikzim. These have the look of deposits formed in a lake; there is nothing to show whether they are interstratified or not with the volcanic rocks. Possibly they indicate a similar state of condition to those under which the rocks of Auvergne were formed where there are alternations of lacustrine strata with volcanic ash and lava. In the same parcels are many fragments of white calcareous tufa, which look like portions of veins that have been deposited by percolating water in the cracks of the lava. All the volcanic rocks are saturated with carbonate of lime produced in this way. The date, or dates, for the volcanic eruptions of Palestine took place at different times, and must be determined by the geological structure of the country; it is probable that all are younger than the Lower Tertiary, or Nummulitic beds, and I should not be surprised if many turn out to be of Middle Tertiary, or Miocene age.

There are also a number of specimens of rocks, on the beach formed of shingle and other fragmentary materials cemented by carbonate of lime. These are associated with broken bits of pottery and glass, and are therefore of modern date, and perhaps still in the course of formation.

I have had another letter from Lieut. Conder, and have replied to it at length, pointing out to him what I think are the meanings of the observations he has so far made, and directing his attention to the points which it is of most importance to notice.

*Sept. 18, 1873.*

CL. H. GREEN.

## EXTRACT FROM A LETTER FROM THE AMERICAN ASSOCIATION.

LATE advices from Syria (in advance of official dispatches), by letter of Lieutenant Steever, commanding expedition, dated July 14th, furnish information of the highest interest. The expedition reached Moab on the first of April, and fixed their camp at Hesbân. Fifteen miles from here, a favourable location having been found, a base-line was satisfactorily measured and established. This done, nearly four hundred square miles have since been triangulated, and the detail of the same almost completed, including the hill shading. The heights of all points within the triangulation have been ascertained, and elevation above the levels of the Dead and Mediterranean Seas well obtained.

Meteorological observations have been regularly taken. It is found that the maps—Van de Velde's, even—of this country are utterly worthless and unreliable. This is not strange, since this region of country and portion of the Holy Land have been nearly inaccessible to travellers. Nor would it be safe now, probably, except by a well-organised expedition.

The archæological and scientific departments of the expedition have also been very successful.

Professor Paine has diligently and zealously pursued his researches and studies. He has already prepared a voluminous report, which has been forwarded through the official channel of the Society at Beirût, on the identification of Nebo and Pisgah. To say nothing of his other discoveries, this alone is a great achievement. Every day's work in the field has revealed to them ruins heretofore unknown and unmentioned by any traveller. The Bedawin tell of the ruins of cities a few days' journey to the south and east, which it is impossible now to visit. The whole country from Kerak to Hauran is in a very disturbed state, in consequence of hostilities between the different tribes. The expedition would soon go into summer quarters. Lieutenant Steever advises resumption of work in autumn rather than wait till the spring.

*July 20, 1873. Palestine Exploration Society,*

*26, Exchange Place, New York.*

# PALESTINE EXPLORATION FUND.

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Patron—THE QUEEN.

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## *Quarterly Statement* FOR 1874.

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THE  
PALESTINE EXPLORATION FUND.

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PREFACE.

It is with great pleasure that we publish the first Reports received from M. Clermont-Ganneau. They are, as might have been expected, of the greatest interest. His labours began from the moment of his arrival at Jaffa, where he found the ancient Jewish Cemetery; and were followed up on his way to Jerusalem, when he visited the site of Gezer, and was able to trace out in part the plan of the old Canaanitish city. In Jerusalem he has made a careful study of the sarcophagi lately found on the Mount of Offence. Besides the other points of interest raised in his Report, it is startling to find in a tomb close to Bethany, of date certainly early Christian, and very likely of the 1st century, the names, *all together*, of Simon, Martha, and Lazarus. Whoever were the persons named, we have here certainly a tomb of Jewish Christians of a very early period, and belonging to a priestly family.

Of no less interest are the Reports of Lieut. Conder and Mr. C. F. Tyrwhitt Drake. The latest letters contain the gratifying intelligence that the Survey is going on very much faster. We have now done more than a third of the whole area of Western Palestine.

Now that the work of the Fund is divided into two parts, the Survey and the Researches at Jerusalem, it is needless to say that the expenses are proportionately heavier. We have to face the next year with a considerable debt, and with a promised annual income of a great deal less than the expenses which will be incurred. These expenses mean about £2,400 for the Survey, and perhaps £1,000 for the Jerusalem work, besides the expenses of printing and publishing, which cannot be avoided. We ask

for increased support in annual incomes or for the raising of a sum of money at once, to enable us to finish off the whole work. We estimate that some £10,000, in addition to what is promised, would cover all work at present contemplated. The *Quarterly Statement* is sent to 3,000 persons. It is suggested to those 3,000 subscribers that if each were to obtain only additional subscribers to the extent of £3, the anxieties and difficulties of the Committee would be removed. Papers showing the aims and objects of the Fund, for distribution, can be had of the Secretary. Further, as at the beginning of the year the claims on the Fund are pressing, we beg to remind our friends that they give twice who give quickly. We ask the wealthiest country in the world to help to an end a work which concerns the highest interests of all mankind.

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### THE MOABITE STONE.

THE two large fragments, together with the smaller pieces of the Moabite Stone which M. Clermont-Ganneau succeeded in rescuing, are now in the Louvre at Paris. Until the small pieces have been fitted into their places with as much certainty as a comparison with M. Ganneau's original squeeze will allow, the monument will not be open to the general public, nor will any casts of it be issued.

The Committee have received a letter from the curator of the *Département des Antiques*, inviting the Palestine Exploration Fund to cede to the Louvre the fragments which Captain Warren brought home with him. These, which contain in all fifty-six letters, have been already cast in fac-simile, and these casts have been presented to M. Clermont-Ganneau. The presentation, therefore, of the fragments themselves would not further advance the restoration of the inscription. On the other hand, it would be satisfactory to the French to have in their hands the whole existing remains of the monument. But to part with the property of the Fund is beyond the power of the Executive Committee, and it is therefore proposed to call a meeting of the General Committee early next year, at which the matter may be fully discussed. At this meeting, also, certain questions connected with the publication of papers on subjects of Biblical interest, not written by the Committee's exploring officers, will be also considered.

Subscribers are invited to forward to the secretary any opinions or suggestions they may have to offer, which will receive full consideration.

# THE JERUSALEM RESEARCHES.

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## LETTERS FROM M. CLERMONT-GANNEAU.

### I.

RAMLEH, Nov. 6, 1873.

I write a few words in haste from Ramleh, where I have just arrived on my way to Jerusalem. The French mail packet will touch tomorrow at Jaffa, and I snatch the opportunity of letting you know that we arrived safely on Monday, the 3rd, after a tolerably good voyage and three days' quarantine at Alexandria.

I took advantage of our short stay at Jaffa to make some examination of the city and its environs. I believe I have succeeded in settling a point which has for a long time engaged my attention, and is of great importance for the history of Jaffa and ulterior researches, namely, *the situation of the ancient cemetery of Jaffa*. I observed a circle, which extends in the great gardens outside Jaffa, bounded by a little hamlet called Abou K'bir\* (Abu Kebir), and by the well of Abou Nabboût (Abu Nabbut). This circle, called Ardh (or Jebel) Dhabitha, contains a quantity of tombs cut in the *tufa*, and exposed every day to the light by the fellahin. I had the good fortune to purchase on the very spot, of a peasant, a small slab of marble, with an inscription that I think to be extremely curious. It is the epitaph, in Greek, of a Jewish personage, with the representation of the seven-branched candlestick and the funeral palm. It is the exact pendant of the inscription of *Thanouni*, which comes also from Jaffa, a squeeze of which I sent you for the Exhibition. By the next mail I will give you a reproduction with a translation. I propose to return and explore the environs of Jaffa, which promise valuable "finds." We must at least find two or three more inscriptions of the same kind coming from the same neighbourhood.

JERUSALEM, Nov. 12, 1873.

The business of getting settled, procuring furniture, finding a house, hiring servants, receiving and paying visits, have not left us very much

\* In the reports and letters of M. Ganneau, the French spelling of Arabic names will be preserved, but after each will be given the spelling according to Robinson's method. Mr. Drake spells the names in his reports according to his own method. The Committee have in consideration the adoption for their map of a uniform system.

time for work. Notwithstanding, we have neglected no opportunity, since setting foot on the sand of Jaffa, of making observations or getting information; and the following is a succinct account of what I have done up to the present moment.

Jaffa.

I had already, during my first stay in Palestine, remarked at Jaffa, in an Arab house belonging to M. Damiani, the French Consular Agent of Ramleh, a fragment of *bas-relief* in marble fitted in the pavement. The first thing I did was to go and examine this. M. Lecomte made a very pretty drawing of it, which you will get by the next mail, with other illustrations of these letters. The *bas-relief* from Cæsarea represents a tragic mask a great deal mutilated and broken below the nose: the head is in fairly good style, and may belong to the best part of the Greco-Roman period. Judging by the arrangement of the hair, the disposition of the fillet, and the ensemble of the features, the mask must belong to a woman's head: the eyes are deeply sunk; and the mouth, in great part gone, must have been open for the classical *ricтус*. A fragment of ringlet on the left, and a bit of wing on the right of the head, seem to indicate that it formed part of a decoration, and other particulars tend to show that the whole was to be looked at from beneath, and formed part, perhaps, of a frieze, rather than the decoration of a sarcophagus. May we recognise here a piece of the Roman Theatre of Cæsarea?

The City Walls.

I made the tour of the city walls, trying to pick out the portions that are ancient, whether of construction or of material. I observed, especially towards the north, and on the seaward side, a considerable quantity of fine rusticated blocks. The people of the place told me that they were brought here from Cæsarea and St. Jean d'Acre. Along the wall may be very plainly distinguished from place to place, in front of the actual wall, old foundations at present partly under water. I ran along the south part of the wall which separates the city from the sea in a boat. Starting from the advanced bastion, above which rise the lighthouse and the traditional house of St. Peter, extends a basin of water of very small depth, the boat touching the bottom every moment. This sea basin is surrounded by a reef of rocks, and bears the name of *Birket el Gamar* (the Basin of the Moon). All this place, and that portion of the site which adjoins it, deserve to be minutely explored. The coast here is covered with ruins apparently ancient.

Traditions.

There is living at Jaffa a certain Mussulman named Ali Sida, master mason. This man, now of advanced age, has directed all the constructions ordered at the commencement of the century by the legendary Abou Nabboût (Abu Nabbût), Governor of Jaffa. It would be interesting to collect from him and on the spot every kind of information on the considerable changes that Jaffa underwent at that time.

Amphora.

An extremely intelligent Arab, living at Jaffa, spoke to me of an amphora handle found in the gardens of Jaffa, and bearing characters of which he showed me a copy made by himself. As far as I could judge by this reproduction, simple enough, but seriously meant, the

inscription is Greek, and gives the name of the potter. I will try to see the original on my first journey to Jaffa.

On leaving Jaffa to go to Jerusalem, I wished to verify an important point, which has engaged me a long time, and I think that I have positively arrived at it—it is the site of the ancient cemetery of the city. With this object, on leaving the gate of the city, in place of following the ordinary road, I directed our little caravan to the left—i.e., to the north, across the gardens which surround Jaffa on all sides. We soon arrived at a small hamlet named *Sakneh Abou K'bîr* (*Sukneh Abu Kebîr*), where I spoke to some of the fellahin. One of them led us a few steps farther in the interior of certain gardens very little cultivated, when I ascertained the presence of numerous recent excavations designed to get building stones. These excavations have brought to light at several points sepulchral chambers cut in the limestone. Such tombs are found, it appears, from the hamlet of Abou K'bîr (Abu Kebir) as far as the Jewish Agricultural Institute, on the other side of the road, and to the present Catholic Cemetery. The peasants assured me that they had found in these tombs lamps and vases in terra-cotta, and stones with inscriptions. At my request one of them went to get such a stone; it is the same of which I spoke in my first note from Ramleh. I bought it for the Society. I examined it at leisure at Jerusalem, and find it to be positively an epitaph in Greek of a Jewish personage, designated as  $\Phi\text{PONTICTHC AAE}\Xi\text{ANAPIAC}$ . The mention of this function occupied by him at Alexandria gives this inscription a great historic value. I propose to send you by the first opportunity a facsimile and an interpretation.

After this short but profitable diversion we made our way to the picturesque fountains of Abou Nabboût, to get back to the ordinary road. We followed it without finding anything worthy of note, as far as the little village of Yazour (Yasûr). Here I left the road to cross the village and examine a little nearer an old building, church or small castle, flanked with centre forts. The only information I obtained relates to the name of the place. A fellah, less savage than his companions, was good enough to inform me that *Yazour* used to be called formerly *Adalia*, and that after the place was taken by an ancient king, by main force (*béz-zôr*), it received the name of *Yazour*. Without attaching importance to an etymology based upon a mere play upon words, I thought it well to note it. It may, besides, be remarked that in this region, as far as the mountains, local tradition often assigns two names to places, the one reported ancient and the other modern. This particularity, which I have often observed in my previous researches, must have its weight with any one who gives himself up specially to onomastic topography.

At Ramleh, where we passed the night, I had no time to do any thing. We started early in the morning in order to pass by the site of the ancient Gezer, which I discovered on the spot three years ago, after determining it *à priori* by theoretical and historical considerations.

We rode straight to the place, crossing over fields split open by the drought, across which it was difficult to urge the horses. Arrived at the summit, we found a house in process of construction, and met there Messrs. Bergheim  *fils*, who are building it, and who told us they had bought the whole hill. Let us hope that this acquisition will make research on the site of the old Canaanite city easier for the future. The works of MM. Bergheim have caused the discovery of certain cuttings in the rock, of which they showed me some which appeared to me very curious. In passing I gave one look at the great *birket*, the plan of which I drew on my first visit. It is now cleared out almost to the bottom.

Site of  
Primitive  
Dwellings:

After taking leave of the new Seigneurs of Gezer, we traversed the whole length of the tell and made the descent in the direction of A'in Yardi and Goubab (El Kubab). On the road I made a fresh examination of the wine-presses, tombs, and foundations cut in the rocks, which had so much struck me on my first visit. I believe I have been enabled to determine in certain cuttings of the rock the position of the ancient houses. Thus, in certain places may be seen four or five steps abutting on a horizontal platform cut in the sloping rock. These cuttings are a trace, a kind of impress, of great houses now disappeared. In other places may be perfectly distinguished the place where the back part of the house rested. It would be well to draw exactly the most characteristic of these incisions and excisions of the rock: they may possibly throw great light on the restoration of the primitive buildings of Palestine. Such drawings and plans can alone make us understand what a Canaanitish city was like. Perhaps we shall be able, with the help of M. Lecomte, to visit the place again and make them.

Disposition  
of houses  
by isolated  
groups.

Another remark that I made during this second visit relates to the manner in which the quarters of Gezer were distributed. In the centre and on the summit of the tell, the strategic importance of which must have been considerable, certainly stood the stronghold of the city—the city proper. Around it and along the sides were distributed a series of small isolated centres of agglomeration, a kind of satellites of the city itself, whose positions are determined by the cuttings in the rock, of which I have spoken above. This disposition to scatter itself, of which Gezer surely does not offer us the only specimen, explains in a striking manner, it seems to me, the Biblical phrase, “the city and her daughters.” Apparently it was this series of isolated groups, forming an integral part of the city, which was ingeniously called the “daughters.”

Abū Gesh.

We halted a moment passing before *Giliat el 'Eneb* (Kuriet el Enab), a village of Abou Ghôch, to visit the church, named after Saint Jerome, which has been recently conceded to the French Government. Certain excavations undertaken since the concession have partly disengaged the crypt, which forms a complete subterranean church, and contains a cave or cistern filled with water. We remarked signs cut on

the blocks of the church above, which I had noted a long time. They leave no doubt as to the mediæval Latin origin of the monument. In the outside walls may be seen many blocks of rusticated stone, which remind me singularly of those utilised in the buildings of the church (also of the Crusading period) of Neby Shamouel and the ruined edifice of Colonia.\*

*Small Bas-relief from Ascalon.*—A man brought me from Ascalon a little slab of marble with a sculpture representing two doves, birds symbolical of the town. (Sketched by M. Lecomte.) Archæological Notes.

*Fragment from the Church of the Holy Sepulchre.*—We have also a drawing of a fragment of sculpture in marble, found during the demolition of the old cupola, the end of a bracket representing a lion devouring a grotesque human head. Greek characters in relief, A. F.

*Marble Head found at Jerusalem.*—A Mussulman of Jerusalem, Rabâh Effendi, has found in taking down a stone wall on his property, not far from the *g'bour el molouk*, a very fine head in marble of a man bearded, with curled hair, and a fillet adorned with a medallion representing an eagle. The type of this head, in good Roman execution, and the characteristic and individual aspect of the features, seem to indicate that we have here a portrait and not a common head. Probably it is one of some historic personage who played his part at Jerusalem. And if we are to take the details of his fillet as marks of royalty, perhaps we have the portrait of one of the Herods. Up to the present I have only had time to glance at this remarkable head. I will see it again and make a careful examination of it. Perhaps it is a broken piece of the statue of an emperor.

*Fragments of Inscriptions coming from the Haram es Shereef.*—The Russian Archimandrite, a man of considerable learning and very obliging, has shown me three fragments of interesting inscriptions brought to light during the repair of the Mosque. Two are in Byzantine Greek, one is in Latin.

## II.

JERUSALEM, November 13—27, 1873.

I have already told you of the discovery, in a sepulchral cave at the Mount of Offence, of a group of Jewish sarcophagi. I have now the satisfaction of telling you that I was not wrong in attributing a very great value, archæological as well as epigraphic, to these monuments. A fuller and more frequent examination has only con-

Judæo-Christian Sarcophagi, with inscriptions, found on the Mount of Offence.

\* Abû Gosh is situated at the east end of the Wady Aly, on the road from Jaffa to Jerusalem. It is called in Murray's map Kuriet el Enab, but it generally bears the name of Abû Gosh, from the brigand of that name, who, after nearly fifty years of crime, was at last seized in 1846. It was identified by Robinson with Kirjath Jearim. (See Smith's *Bible Dictionary*, *sub voce*.)



firmed my first judgment. I wish I could have taken photographs, but we cannot yet get at the apparatus. In their absence I tried to take squeezes of the ornamented surfaces as well as of the inscriptions themselves, the decorations being engraved lightly, so as to present few difficulties to this method of reproduction.

The ornamentations are exactly like those of similar monuments already known and published in the *Bulletin du Musée Parent*, the *Recovery of Jerusalem*, and in a memoir of my own which appeared in the *Revue Archéologique* of this year. Their principal *motif* consists of two roses geometrically constructed with greater or less complication.

The lids are of different forms (triangular, semicircular, rectangular, in section) and fitted to the sarcophagi in different ways, either placed on two or four internal rebates, or sliding into the sarcophagus just like the lid of a box of dominoes. The latter are provided at the upper part with a notch for the hand. The inscriptions, in Hebrew and Greek, are sometimes on the lids, but more often on one of the sides or ends of the sarcophagus itself. Some are painted or traced with *kalam*, or even with carbon; the larger number are engraved with a pointed instrument, but not deeply. Several, not only Greek, but also Hebrew, are accompanied by crosses, which leave no doubt of the religion of the persons whose remains were preserved in them; others present a sign of cuneiform appearance: others, again, have no symbol whatever, not even the palm or the seven-branched candlestick, which I have so often found on funeral inscriptions incontestably Jewish.

Here is a translation of the principal of these inscriptions. I send you my notes without attempting a classification:—

I. Hebrew inscriptions:—

(1.) *שלום אשת יהודה*. *Salome, wife of Judah*, engraved in very small characters. Below, in large characters, *שלום*, *Salome* (or perhaps a formula, as “pax”), with the symbol,  which appears like a leaf, or a bow with its arrow, but which  is, nevertheless, in my opinion a cruciform sign.

*שלום אשת יהודה*. *Salome, wife of Judah*, on a flat lid which very likely belongs to the preceding sarcophagus. On the other face of the lid a Hebrew inscription indistinct, but with the same cruciform sign as that given above.

(2.) *יהודה*. *Judah*, with the cross +. Perhaps the husband of Salome, for the others of the same name whom we meet with afterwards do not appear to have been Christians.

(3.) *יהודה הכפר*. *Judah the Scribe*. The quadrangular *samech* is a very interesting form. On another face of the sarcophagus, and rather carelessly engraved, *יהודה בר אלעזר הכפר*, *Judah, son of Elkazar the Scribe*. The word *sofer* is this time written in full, with the *vau*, and the *samech* is triangular as usual.

(4.) *שזען בר ישע*. *Simeon, the son of Jesus* (Bar Jesu'o). In characters nearly microscopic, but neatly engraved (comp. Elymas Bar-jesus the magician).

(5.) מרתאנפצה. *Martha, daughter of Pasach.* with the *tsade* in place of the *samech* is quite admissible in vulgar orthography. The *tsade* is due to the attraction of the strong letter *heth*. Perhaps the name is Jewish as well as Christian.

(6.) אלעזר בר נתי. *Eleazar, son of Nathan.* The form *Nathai* for *Nathan* is not uncommon (cf. *Tannaï*, &c.). May we recognise in this *Eleazar* the father of *Judah* the Scribe in No. 5?

(7.) יהודה ברחנניה. *Judah, the son of Hananiah.* It has been traced in *kalam*, appearing to be followed by the word יִשׁ, *Man of* (cf. Luke iii. 23, for the name only).

(8.) שלמציין בת שמעון הכהן. *Salamtsion, daughter of Simeon the Priest.* The name of the woman, *Salam Sion*, is of the greatest interest. We find it under other forms in the Talmud (as the name of the wife of *Alexander Jannæus*). It is the name *Salampsion* of *Josephus* (daughter of *Herod*). It appears to me formed exactly like ירושלם, *Jerusalem*, *Jeru-* being replaced by *Sion*, and the order of the parts reversed.

(9.) שלמציין. *Salampsion.*

(10.) קרקס. Perhaps a transcript from *κοραξ-κορακος*.

There are several others that I have not been able to make out except in part.

II. Greek inscriptions :—

*Jesus.* ΙΕCOTC, twice repeated, with the cross +. *Nathaniel,* NATANHAOT; ΗΔΗΑ; ΚΥΡΘΑC; ΜΟCΧΑC; ΜΑΡΙΑΔΟC; ΗΔ, accompanied by a cross apparently of a later date ✝.

These inscriptions raise a large number of questions of which I defer the consideration for the memoir which will accompany the drawings. Their value rests principally upon three points.

(1) Epigraphy. New documents throwing strong light on the history of the square Hebrew character, and enabling us to establish a synchronism with other inscriptions known but not dated. It is now evident, for example, that the inscription engraved on the sarcophagus taken by M. de Sauley from the "Tombs of the Kings" (*K'bour el Molouk*) is contemporary with these, and can scarcely, therefore, be far removed from the Christian era.

(2) History of the origin of Christianity. Monuments belonging to the beginnings of Christianity, before it had any official position, coming from the very soil where it had its birth. No monument of this kind had hitherto been brought to light. The cave on the Mount of Offence belonged apparently to one of the earliest families which joined the new religion. In this group of sarcophagi, some of which have the Christian symbol and some have not, we are, so to speak, assisting at an actual unfolding of Christianity. The association of the sign of the cross with names written in Hebrew constitutes alone a valuable fact.

Perhaps, also, we ought to consider those which have no such symbol at all as Christians of the most ancient period. Perhaps "*Judah the Scribe*," and even "*Simeon the Priest (Cohen)*" belonged to the new

religion. In that case this Simeon might very well be the second Bishop of Jerusalem. But then would arise (only to be solved) the grave question of the marriage of Christian priests, since Simeon has a daughter named Salamsion.

I must add that in one of the sarcophagi (unfortunately it is impossible now to know which) were three or four small instruments in copper or bronze, much oxidized, consisting of an actual small bell, surmounted by a ring. The Arabs thought they were a kind of castanets. Can we trace here the equivalent of the bells hung on the robe of the high priest? \* And do these ornaments come from the sarcophagus of our Simeon? We took drawings of them just as we did of the vases and vials of terra-cotta found in the other sarcophagi.

The explanation of the symbol also deserves serious attention.

3. The names. What gives additional value to these short inscriptions is, that they furnish a whole series of names found in the Gospels, in their popular and local Syro-Chaldaic forms—the use of *bar* for *ben* (son), for instance. The presence of the names of Jesus, written with its vulgar contraction, and Martha, of which we only knew historically that it was the feminine form of the Aramaic מרת, would alone be sufficient to make this collection important from an exegetic point of view.

By a singular coincidence, which from the first struck me forcibly, these inscriptions, found close to the Bethany road, and very near the site of the village, contain nearly all the names of the personages in the Gospel scenes which belonged to the place: Eleazar (Lazarus), Simon, Martha . . . a host of other coincidences occur at the sight of all these most evangelical names, if it were not imprudent to indulge in conjecture thus early in our researches.

It is deplorable that this interesting family tomb should have been opened by unintelligent and rude hands, which have carried away the sarcophagi without taking any kind of precautions, mixing up the lids, breaking the bones and the vases of terra-cotta. It is impossible now to know in what order they were arranged. I am told that they were placed over each other, giving some sort of chronological key, which it is a great pity to have lost. I think I ought to note that I have not seen among all these remains a single fragment of glass, and I have not been informed of a single object of this material among all the collection.

C. CLERMONT-GANNEAU.

\* See Exod. xxxiv. 24—26; Joseph. *Antiq.* III., vii., § 4; and Ecclus. xlv. 9.

# THE SURVEY OF PALESTINE.

LIEUT. CLAUDE R. CONDER'S REPORTS.

## XVI.

P.E.F. CAMP, BLUDAN, *August 27, 1873.*

In my winter report I endeavoured to give a detailed account of the proportions of various kinds of archaeological relics, interesting to the explorer and Biblical student, with which we had met during our preceding work. I will on this occasion endeavour to give a general idea of the country we have passed through, and of its ruins and natural features.

The Ordnance Survey now extends over 1,800 square miles. The upper part of the Plain of Sharon and the Carmel promontory are complete, and thus two sheets are ready for publication along the coast, namely, the Athlit and Cæsarea sheets. Before Christmas I have great hope of completing the Jerusalem sheet, and in early spring the Jaffa and Ramleh sheets will also be fit to engrave. Thus there will soon be a possibility of presenting to the public the results of part of our labours, which have extended over portions of no less than eight sheets of the map. Progress of Survey.

Our summer and spring work was in the district between that of the year 1872 on the east, and the sea on the west. By keeping the camps as far apart as possible, and increasing the size of the triangles, we were able to obtain a material increase in the rate of work, and left on breaking off rather less than a fortnight's work in the Plain of Sharon to fill up the whole of the blank space and to complete the coast line from Haifa to Jaffa.

The south side of Carmel—a rugged and tangled country of hard grey rock and pistachio wildernesses—is undivided by any great natural feature from a block of hills of rather less elevation, but equally steep and wild. The Plain of Esdraelon is to the east, and a narrow strip of flat fertile corn-land lies to the west, separated from the shore by a sort of wall of sandstone, and edged by groves of olives at the very foot of the hills.

This line of country runs southward for about twenty miles from the Carmel promontory, and is bounded by the River Zerka, a torpid stream flowing through fetid marshes, in which reeds, canes, and the stunted papyrus grow, and where alone in Palestine the crocodile is found. Beyond the river the plain suddenly widens to more than double, and a new character of country succeeds.

In the midst of the wild range thus bounded the remains of an ancient cultivation are still traceable. Little square watch-towers with dry-

stone walls, huge rock-cut wine-presses, ruins of terraces and stone boundaries, occur here and there. A Druse village, remarkable for its fine race of hardy men and fair women, bears the name of Dalyeh (the trained vine), and the rich soil which covers the iron rock, even though now untilled, supports a luxuriant wild growth of bushes and small trees: mastics, oaks, and hawthorn abound, and in spring a carpet of gay-coloured flowers is spread, a marked contrast to the bare mountains of Judæa and the brown corn-land of the Plain of Jezreel.

In the middle of this wild country, in a strong site, with a deep bare ravine behind it, stand the ruins of Kh. Semmaka, a Roman town, of which the wall, the foundations of a little temple, and other relics, remain. I have in a former report\* given the reasons which seem to point to its identification with the Ecbatana of Josephus.

Descending into the plain beneath, we find ourselves in a land of tombs. Both faces of the sea-wall are excavated into innumerable sepulchres, and the rocks at the foot of the chain are similarly mined out. The probable date of these tombs is that of the Roman occupation of Palestine, and all, without exception, have been opened and their contents rifled.

Although at the present day this is one of the wildest and least populous districts of the country, there is little doubt that then it must have been covered with villages, and as fertile as any other part of Palestine. Along the sea-coast runs the great high-road to Egypt, and the ruts of the light chariot wheels are still visible in places on the rock. Passages leading to the various towns were cut through the sea-wall, and contained guard-houses on either side. The masonry of the various sites has long since crumbled away, but cisterns, steps, and foundations cut in rock attest in places the existence of considerable buildings.

Dor.

The site of the ancient Dor,† called later Tantura, appears to have been the chief town at this period. A great mound alone remains, from which the ashlar has been long ago abstracted, and on the shore of the little harbour the bases and capitals of large columns belonging to the temple of some maritime deity. A landing-place with flat slabs and traces of a building, no doubt for the accommodation of sailors and traders, are found upon the shore. Behind the town a fine causeway runs south, and passes by a number of granite shafts planted perpendicularly in a line beside one another.

Here also are remains of another great building epoch, that of the Christian occupation of Palestine, consisting of a tall solid tower of rubble faced with ashlar, which is a conspicuous landmark for a great distance on every side. It formed one corner of a fortress long since fallen into dust, and stands boldly out on a little brown promontory south of the Roman town.

\* *Quarterly Statement*, 1873, p. 96.

† Joshua xi. 2; xii. 23; and Judges i. 27.

The headquarters of the Crusaders were, however, farther north, at the great seaport of 'Athlit, the *Castel Pelegrino* of mediæval writers, Athlit. where first the new levies landed on the comfortless coast of the Holy Land.

Very impressive must have been the general appearance of the town to the pilgrim. The church, a decagon, with its three eastern apses, the great hall of El Kaynifeh towering above all, the long vaults for stabling and storage, the groined roofs and noble masonry, with the strong surrounding walls, must have made 'Athlit perhaps the finest town of the period in the country. The strong outworks of Dustrey (Petra incisa) and other ruins made it unassailable on the land side; whilst two shallow harbours, protected from various winds, rendered it accessible at any period of the year.

The pilgrim travelling inwards was defended by a line of forts at easy distance. Shellaleh (the cascade) and Rushmia carried him over Carmel to the Plain of St. Jean d'Acre, and Seffuriyeh brought him close to Nazareth. Going south he passed from Tantura to Cæsarea, and thence, by the high tower of Kakun, the beautiful hall at Kalensawyeh, and the caravanserai at Jiljulia, down to the settlements near Ramleh, and hence to Jerusalem.

On crossing the Zerka we enter another region. The precipitous inland cliffs which mark the shore-line of a former geological period recede suddenly, and form the north boundary of the great Plain of Sharon. Half of its width is of marl and alluvial soil, the other half of old red semi-consolidated sand of sandstones and shelly breccias of blown sand in huge encroaching patches. The hills beyond are of the softest chalk, lying in gentle slopes, which are in parts covered by woods of oak, the trees standing park-like at intervals, with a floor of sand in some places, or of hard limestone in others.

It was here that Herod the Great chose the seat of his capital, and built upon a barren coast, of white stones brought from a distance, the Cæsarea Palestinæ which was to form the connecting seaport between Jaffa and the northern harbours. Hidden by rolling sand-hills, it stands low on the sea-shore, and exhibits in April long expanses of a yellow composite flower, with thin patches of weed-strangled corn, from which the brown ruins stand out contrasted. The period was unfavourable for excavation, and we were content with survey alone.

The Roman town was of considerable extent, but little of it remains except the mounds which indicate where masonry has been. The line of the wall we were able to trace, and the site of some of the principal buildings enumerated by Josephus in his account of the foundation.

His estimate of the harbour as being equal to the Piræus is exaggerated, as it only measures about 300 yards across. The mole on its south side, equal nearly in length, still remains, and though its buildings are Crusading, the original plan seems to have been reproduced, for half was left as a breakwater (прокъматия), the rest, covered with buildings, replacing the tower Drusus of Herod. Great blocks of granite lying at

its feet in the water are no doubt fragments of the huge stelæ which rose on the same spot, like towers. Of the temple to Cæsar only a foundation wall remains. It would, however, perhaps repay excavation. Its white stones contrast with the brown sand-blocks of the later builders, and attest Josephus's accuracy in describing the materials as brought at great expense from a distance.

But perhaps the most interesting relics are those of the theatre and amphitheatre. The Greek of Josephus's account, accurately rendered, runs thus: "He made also a theatre of stone, and towards the south of the port he placed an amphitheatre capable of containing a great number of men, suitably situated for a view of the sea." <sup>2</sup> We see at once that by the amphitheatre is intended the great earthwork with its surrounding ditch, its ramp, and principal entrance, which exists south of the mediæval town. This may well be described as capable of containing a great crowd of men; 30,000 could be gathered within it. The situation of the theatre is not defined, but it is specified to have been of stone; and a semicircular stone building, sufficiently large to have been a theatre, exists in the mound itself. It seems, therefore, within the bounds of probability that the *αμφιθέατρον* was rather the building *round* the theatre than a double theatre, according to the usual acceptance of the term.

Close to the wall of the Roman enceinte on the east is a longitudinal sunk enclosure resembling a stadium, with fallen stelæ of beautiful granite. This building, however, is unnoticed by the historian.

The second building age of Cæsarea has left ruins far more perfect, though of less interest. The great cathedral rose almost on the foundations of the Pagan temple. The fortress of the port stood on the site of "Drusus" above the tessellated pavements of the earlier age. In the north quarter of the town another small church was built, whose ruined walls overhang the low cliff. The enceinte, however, was reduced to about a tenth of the area.

The water-supply of the town was a matter of some difficulty, from the nature of its porous, sandy soil, and its level, which was very little above that of the sea. One shallow well exists near the cathedral, and numerous cisterns are scattered about, but in Roman times the population must have depended principally on the great aqueducts.

The low-level aqueduct, with its single tunnel, 7 feet high, ran straight to the Zerka. A dam here erected, 20 feet in height, collected the waters in a pool, whence they were drawn. A fine masonry wall stretched from the hills to the sea-wall, and prevented the drainage of the northern marshes from finding any other channel of escape than the Zerka river. But the high-level conduit was a far more ambitious attempt. Starting at the clear chalk springs in the hills, near Sindiaia, it collected a further supply of good water banked up by weirs near Miamas, and crossed the marshes on arches of fine masonry. The sea-wall intervened between it and the shore, and was pierced by a tunnel, to which great flights of steps led down a depth of 30 feet. This difficulty overcome, the remainder of its course was less difficult to engineer,

and the long row of arches are visible covered with the blown sand hillocks in part stretching along the shore of the sea. The channel was double, but the existence of a cornice built into and hidden by the substructions of the western conduit show that this second was added later, when the supply proved insufficient.

North of Cæsarea, and at the foot of the hills, we find at Miamas Miamas. another centre of Roman life. A theatre only remains, converted later into a Saracenic fortress, but the strewn columns by the springs in its neighbourhood point to the existence of other public buildings. Upon the hill above are some curious vaults, which are undoubtedly of Roman origin, but for what purpose, unless for the kenneling of the wild animals, it is not easy to decide, and the distance from the theatre is considerable.

But little else of interest was left to explore in the plain, as the remains of Antipatris were without the limits of this year's work. At Mukhalid and Burj el Atut are relics of the Mohammedan great build- Mukhalid.  
Burj el  
Atut. ings—a tower and a khan. Tombs, with the interior painted and cemented, occur in parts along the sandstone cliffs, and here and there an artificial mound or tell. The towers of Kakun and Kalensawych Kakun  
Kalensaw  
yeh. represent Crusading times; and a fine hall of Gothic architecture, roofless and half-obliterated, exists at the latter place.

The third district, which occupied us during May and part of June, was the low hill country east of the plain, and at the foot of the central The Low  
Hill  
Country. range. It consists of a hard limestone, with a few flints and fossils, covered with more or less underwood, and with straggling patches of barley, destitute of springs, and becoming more and more difficult and barren as we advance south. The miserable villages stand deserted and half broken down, and the ruin of the broken-spirited inhabitants by the exactions of greedy tax farmers gives a desolate appearance to its whole extent, contrasting with the rich and fertile olive-groves and corn-lands of Samaria and Galilee. The grass grows on the housetops and the stones choke the corn. The district is unvisited by the ordinary tourist, and the savage, inhospitable brutality of the peasants, with bad water and scarcity of provisions, made us glad to find ourselves at the end of our work in the Belad el Jem'ain and Beni S'ab. The first site of importance which we found was the Khirbet Dayr Asnrhr, or perhaps more properly Serur, although there is no vowel in the Arabic to direct the spelling. I have described it fully in a former paper.\* Its other names are Khirbet el Musk'ufi, "Ruin of Ceilings," and Khirbet Nasirah, "the Christian Ruin." I feel but little hesitation in identifying it with Sozuza, the seat of a Christian bishop, first mentioned at the Council of Chalcedon (in the middle of the fifth century), and placed on an ancient map to be found in the "Geographia Sacra" of Carolus a Sancto Paulo (Amsterdam, 1704), between Cæsarea and Samaria, close to the actual position of the ruin in question. No earlier notice appears to exist, but the town must have dated before

\* *Quarterly Statement*, 1873, p. 139.

Christian times, or it would scarcely have been chosen as an ecclesiastical centre. The ruins also seem of Roman character, and the great public building, although with its door to the west like a church, has no apse, and is founded on a moulded podium, like the temples of Cœle-Syria discovered by Captain Warren. I have already mentioned that we obtained a Roman coin on which S C alone was legible, said to have been found on the spot. Roman tombs also exist in a necropolis east of the town.

The next camp was principally noticeable for the number of small square towers which were found in every direction. Their time-worn appearance and large stones point to their great antiquity. A dozen sometimes are to be seen within a few hundred yards of one another. They are no doubt the signs of an ancient cultivation long since swallowed by the spreading wilderness of pistachios, and remind one of the rich man who "planted a vineyard, and set an hedge (of stone) about it, and digged a place for the wine-fat, and built a tower, and let it out to husbandmen, and went into a far country" (Mark xii. 1). The great wine-vats, hewn in rock on flat places, attest the ancient fruitfulness of this deserted land.

Wady Kana. Having with difficulty conducted our heavily-laden pack animals over the terrible Wady Kana (the boundary River Cana of the Book of Joshua), we found ourselves in a part of the country where ruins were numerous. The principal were convents, of which Dayr Kalā'ah, a fortress overhanging a deep precipitous valley, was the finest and best preserved specimen. Their date is probably about the fourth or fifth century of the Christian era.

Farther south yet we visited the wild and rugged site of Joshua's home, where, amidst deep valleys and steep hill-sides, the simple tombstands blackened by the smoke of its hundred votive lamps. Hence to the plain we traced the noble Roman road, with its firm pavement and ably engineered slopes, along which St. Paul was hurried by night to Antipatris; fallen milestones, with lettering long since worn away by rain, lie beside it, and at Dayr 'Allāh we pass by a large Roman town, with just the traces of its little temple visible in the middle.

This rapid review of the country thus thoroughly explored, in conjunction with the copies of our various surveys sent home, the full list of which I attach, will show, I think, that our time has been spent in a district little known, and amongst ruins which cannot fail to be of high geographical and antiquarian interest. The work to which we shall so soon return in the Bethlehem hills, and along the lower part of the Jordan Valley, by Jericho, the Dead Sea, and the wild Marsaba ravine, will, we hope, prove equally interesting, if not altogether such unstudied ground.

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## XVII.

P. E. F. CAMP, BEIT 'ATAB, 19th October, 1873.

Our pleasant stay in the Antilibanus came only too soon to an end, and all our spring and summer results were only just fully worked out, when we again started on a long journey to the south, in accordance with my plans already explained.

Our great caravan of eighteen pack animals and eight horses created quite a sensation as we went down the steep, narrow streets of Bludan, and winding away over the hills descended by a steep wady into the great Buka'a plain, losing sight of our hospitable home for the last three months. Next day we were in Beyrout, and on the 29th of September I marched out again, accompanied by Corporal Armstrong, to perform the journey to Jaffa by land, partly in order to see Tyre and Sidon, partly to shoot sea-birds for stuffing along the coast, but chiefly because I was unwilling to leave our valuable animals to the care of Syrians without supervision, especially after the miserable appearance they had presented on arriving at Beyrout from the south. The journey was long and tedious, especially 11½ hours the last day, but on the 3rd of October we reached Jaffa at sunset, and found Sergeant Black safely landed with all our heavy baggage. Saturday and Sunday were allowed for rest to man and beast, and a violent storm of rain on the latter day was opportune, as we were not under canvas. Monday night found us at Jerusalem, where considerable operations of packing and refitting occupied a few days. Friday we reached our present camp, chosen on a spot whence the west and south limits of the Jerusalem sheet can be reached; and so rapid has been our work under the new arrangements that I hope to find eighty or ninety square miles complete at the end of the twelfth day.

The country we are at present surveying is perhaps the most interesting we have as yet visited. A great number of Bible sites have already been identified in it, and more remain to be fixed. A few suggestions of interest I will venture here, although identifications are not in my department of the work.

The wild and impassable wadies, the steep, hard, rocky hills, with their wildernesses of mastic, clear springs, and frequent caves and precipices, are the fastnesses in which Samson was born, and from which he descended into the plain to harry the Philistines. The possessions of his father, Manoah, lay between Zorah and Eshtaol (Judges xiii. 2), and in the same spot he was buried (Judges xvi. 31). The former has been identified with the present Sera, and Sergeant Black has suggested that Eshu'a, a mile or so to the east, may be the representative of the other name. Zorah and Eshtaol.

Another site to which we directed our attention was the rock Etam. The Rock Etam.  
to which (Judges xv. 8) Samson retired before his cowardly surrender

by the elders of Judah. I am ignorant what may be the precise translation of the word rendered "rock" in the English translation, but the place must have been one supplied with water, and also of considerable extent, for in verse 11 we read that "3,000 men of Judah went to the top of the rock Etam." It was not far from the patrimony of Manóah, from which Samson "went down" to it. The requisites of the case are all met by Beit 'Atab, which Sergeant Black suggested might be the place for which we were hunting. Standing somewhat lower than Eshú'a towards the south, it yet, from the gradual slope of the ranges, is a conspicuous point from more than one direction. It could not be better described than as a rock—a steep, stony, bare knoll standing amidst the winding, narrow valleys, without a blade of corn upon its sides, whilst long olive groves lie at its feet and round its three clear and abundant springs. The site is a remarkable one, and one or two old tombs are found in the northern valley, whilst a cave, narrow, but of considerable length, exists in the hill, running from near the spring to the middle of the village, the whole 250 ft. being artificially mined out.\* Timnath, the present Tibneh, where Samson chose his first wife, is but a little distance west of this place, but its vineyards, in which he slew the lion, are now only marked by the traces of ancient cultivation and rock-cut wine-presses existing in the vicinity.

Valley of  
Sorek.

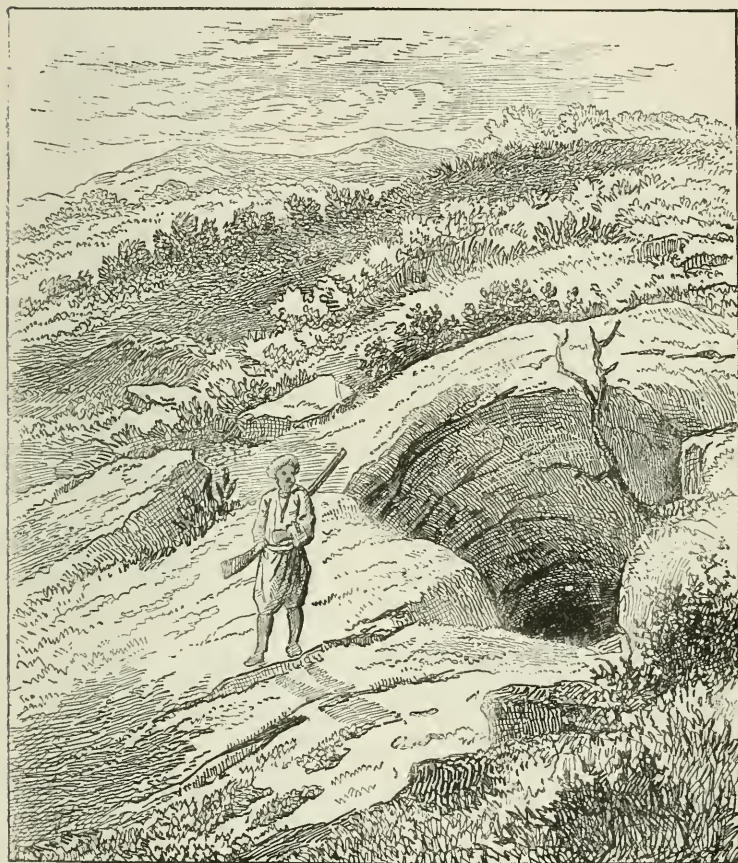
I may add another identification, which almost fills up the list of the places noticed in this part of the Scripture. The valley of Sorek was the home of Delilah, and appears to have been a natural feature of some importance on the borders of Philistia. There can, I should imagine, be but little doubt that this is the present Wady Surár, which runs as a broad, flat valley through the lower hills, and reaches the sea at Yebneh. It must have been up the same valley that the little cart with its lowing kine came jolting in the "straight way" unbroken by a single hill from Ekron to Bethshemesh, now Ain el Shems, when the peasants, lifting their heads from the reaping, saw the ark, as we can picture to ourselves, coming up among the round white hillocks, dusky in the sloping light of the afternoon sun, which casts long shadows among the winding valleys, backed by the brown plain and yellow sand-hills of Philistia which stretch far away to the gleaming horizon of the sea.

The place, however, which may perhaps prove of the highest interest

\* Beit Atab is situated on a high hill, and is seen from all parts of the country round; but although it overlooks a great extent of the lower region towards the south and west, it does not afford so extensive a view of places as we had hoped to find. The country is full of sites of ruins and villages, some inhabited and some deserted, at least for portions of the year. Beit Atab has several high square tower-like houses of two stories; the rest are small and low; but all are of stone, solidly built. In the centre is a ruined tower or castle, but so dilapidated as to be nearly lost among the houses.—Robinson's *Biblical Researches*, vol. ii., p. 339.

is a cave called Mogharet Umm el Tumaymiyeh. On the 17th inst. I visited it in company with the Rev. Mr. Neil and Dr. Chaplin, and we executed a careful plan, to which I have added several sketches. We obtained the same guide who accompanied M. Ganneau, and I subjoin a full description of a site which may prove of importance.

Mogharet  
Umm el  
Tumay-  
miyeh.



MOGHARET UMM EL TUMAYMIYEH.

Flying from the face of Saul, David first sought refuge at Gath, and thence he came to Adullam, where he remained whilst sending news of his position to his native town.

It is remarkable that the range of country over which his wanderings extended was never large, and even when most pressed and driven away south to Maon and Ziph, he was scarcely 30 miles from his home. This

may perhaps be accounted for by the very difficult nature of the country he had to traverse, and the facilities for hiding from an enemy even when close at hand. It would seem, therefore, natural to suppose the Cave of Adullam to be at no great distance from either Gath or Bethlehem. The position of Gath is very distinctly stated by Jerome (Comm. on Micah i.), as being five miles from Eleutheropolis (Beit Jibrin), on the road to Gaza. Thus the site in question would be on the way from Gath, and some ten miles from Bethlehem.

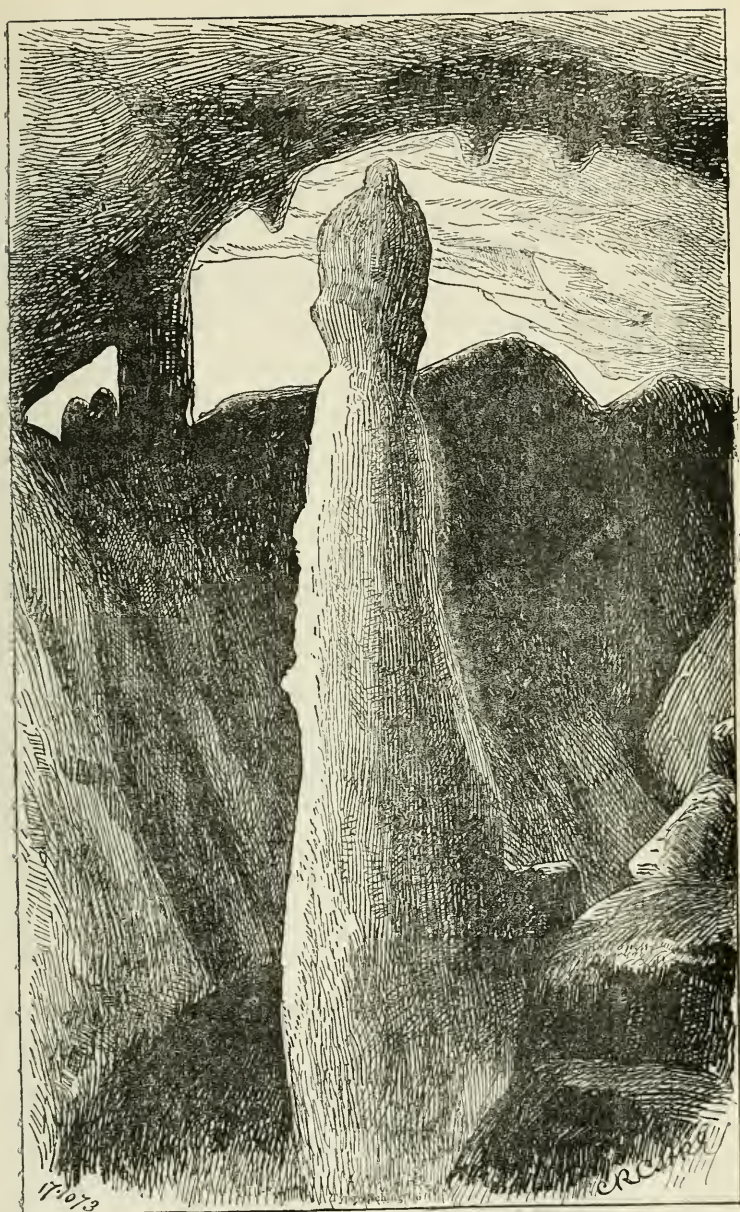
The present name is Mogharet Umm el Tumaymíyeh, "The Cave of the Mother of Two Twins." We have not found the name of Adullam, unless it be recognised in Wady Dilbeh, which bounds the ridge in which the cave is found, on the northern or opposite side.\* The cave took its name, Josephus tells us, from the city of Adullam, in its neighbourhood; a ruin called Kh. S'aíreh or Kh. Dilbeh exists on the south of the wady about a mile north of the cave, above a very fine spring. It is not, however, of any great extent.

The place is one very striking to the imagination, and commends itself as a likely site. Leaving the ordinary road, we descended into a very narrow ravine between steep and rocky hills. No path led over its loose shingle, alternating with smooth, slippery slides of rock, worn by the winter torrents. The wild, dark pistachio bushes sprung in a dense thicket, interspersed with thorny shrubs, with bushes of cistus and a carpet of thyme and mint growing amongst the hard, dark ledges of the limestone. Traces of ancient terraces we passed in places, but all is now a silent, tangled wilderness. At length, before us we saw a cliff with a small cave some few hundred feet up the slope, and I naturally supposed this to be the place until my attention was called to an opening close at hand in the shelving rock. So curiously is this formed that one might easily pass by without seeing it, and a few bushes would effectually hide it from observation.

Descending rapidly, we found ourselves in a great round vestibule, partly choked by fallen *débris* from the roof, and measuring about 160 feet in diameter. The height is greatest at the sides, where a passage leads round to other compartments. On the extreme east is a small one, sinking suddenly, and supported on stalagmitic columns, one of which, supposed to resemble a man in a helmet, I have sketched. Several curious low excavations, like rough tombs, run in from its sides. North-east of this is a second basin, surrounded curiously by a natural raised gallery, supported on stalagmitic columns: seen in the lurid light, half of day and half of our candles, it seemed like one of the mystic halls which Southey describes in *Thalaba*, a weird and indefinitely extensive succession of caverns, pillars, and pendants, glistening like silver.

Farther north is a more important part of the excavation, showing the handiwork of man. A little pool, which even at this time contained over a foot of water, famous for its medicinal qualities, is cut in the floor of a small cave on a higher level, and is no doubt supplied by the infil-

\* See *Quarterly Statement*, 1872, p. 116.



MC GHARET UMM EL TUMAYMÍYEH (INTERIOR).

tration through the strata. A channel leads down at a steep angle, apparently to a second cistern, now much broken. The sides of the rock are here cut with the pick, a work of some considerable labour.

The most striking feature, however, remains to describe. A narrow winding gallery, with pillars of stalagmite, leads to a long tunnel, ending in a natural well over 60 feet deep. This gloomy place possesses an interest of its own. The Mohammedan peasantry are extremely strict in certain moral points, and this well is the death-place of those who offend. Only two years ago an unhappy woman and her lover were brought here. The man was thrown down the steep slide which leads to the hole and shot at as he fell. The girl followed, but was not shot, and fell upon his body. She was rescued later by her relatives, but did not escape her fate.

The slide is a place somewhat difficult to descend, as the floor is covered with bats' manure, and affords hardly any hold for foot or hand. I was therefore made fast by two stout ropes, and crept cautiously to the edge of the well, to the very bottom of which I was unable to see even then. The difficulties of descent were so great, that I did not go any farther, and calculated the depth, by the fall of a pebble, to be about 50 feet. The well is dry, I believe, and almost circular, about 15 feet across. To all appearance it is entirely natural. Any one who went heedlessly or in the dark to the edge of the slide must inevitably meet with his death.

As I have said before, the cavern suggests itself as a likely site to the imagination. The four hundred men in distress, in debt, or discontented, who stole up that stony ravine to join the outlawed chief, we can well fancy seated round their smoky fires; poor, ragged, sunburnt fellows, no doubt, stealing in and out of the gloomy, damp recesses of the cave, and startling the thousand pigeons which may then as now have found refuge in the clefts of its rocks. For defence also the place was admirably suited, not only from its inaccessible position and inconspicuous entrance, but also by reason of the great mass of earth, fallen like a traverse, as the word is used in fortification, before the door, round which, in a narrow passage, the invaders must advance. That this *débris* is ancient is, I think, shown by the pillar which is formed by the junction of a stalactite from the roof with a stalagmite on the rock which has fallen.

On the other hand, however, there are objections to the site, the principal of which is its entire unfitness for human habitation. Water there is, indeed, but in too great a quantity; everywhere the stalactitic pendants adorn the roof, the sound of dropping water is heard, and a damp and hot atmosphere, almost unbearable, exists throughout. Nor is this a modern alteration, for the character of the rock permitting the infiltration which no doubt first formed the cave is unchanged. The great columns require an action of an indefinite period for their formation, and bear witness to the same fact. For men to live in the cave or sleep in it for even a night must inevitably result in a severe attack of the

same fever and ague with which Mr. Neil was slightly affected during a very short visit.

Our next undertaking was to hunt for the tomb of Samson between the two villages already noticed. To say that we have found it may perhaps be too bold, but we have found what may be very probably assumed to be the same. The book of Judges places it between Zorah and Eshtáol, but Josephus says that Samson was buried "in Sarasat (Zorah or Será), his own country, with the rest of his family" (*Ant.* v. 8.12). Now about a quarter of a mile north-east from Será are the remains of a rock-cut cemetery, the tombs being broken and filled with rubbish, and amongst them is a large tomb, now only a cave, being broken away from its original form. It is highly probable that here we have the burial-place of the strong ruler and the patrimony of his father, Manoah. Is it too much to imagine that the name Sh. Samat, which is an unusual one, and has never occurred in our work previously, but which here is found in the village of Será, may be connected with some tradition of Samson. Tomb of Samson.

The country is also full of ruins and names which belong to a time of Christian colonisation; among these are Bir el Sahb (Well of the Cross) twice occurring, Khallet Musellabeh, 'Ain el Kassis, &c. Such titles never occur except in parts where the early or Crusading Christians had for a time a footing. Among the ruins are three small churches with very thick though roughly built walls, occurring at El Kubna, Kh. Ain el Keniseh, and 'Allar el Sifeh. Beit Skavia also, a ruin on the watershed line close to one of the fine Roman roads which here traverse the country in every direction, was a place of some importance in Christian times. In it I discovered two Byzantine columns with the usual clumsy capitals of ninth or tenth century work; at Kh. S'aideh are also traces of some large building with a crabbed Greek inscription of which I send a sketch. A Hebrew inscription we discovered on the door of a tomb near Beit Natif.

There are a greater number of names in this part of the work; we have from this camp collected 240, 36 of which are on Vandevelde.

There are an immense number of springs here observable, due perhaps to the very regular bedding of the hard uptilted limestone, which causes a supply of water collected on the hill-tops to flow down through one fissure between two beds undispersed till it reaches the lowest point, or one where it can easily escape. In the course of three days' survey I fixed twenty springs, of which only one is shown on Vandevelde's map. Our list of names from this camp includes no less than forty-one, not numbering those which have the name of the village they supply.

We have been successful in obtaining many fossils which will no doubt be of value. They are principally bivalves belonging to the Jurassic period, but there exists in one spot a regular bed of fossil oysters of some extent.

At Nehalin, a village not far from us, is the tomb of a famous sheikh. Haj 'Alían, whose story, related to me by our very intelligent guide, is more worthy to be recalled than most Mohammedan legends.

Nehalin.

Travelling from his native town along the coast this poor old hermit went, according to custom, into the mosque to pray. His raggedness, misery, and uncleanness offended the fat and comfortable worshippers from the rich seaport town, and the abba he spread was regarded as a contamination to the sacred place. One by one they withdrew from near him, and the mosque authorities finally turned him out. Driven to the shore, in his anger he flung the abba, which he could not spread on earth, into the sea, but obedient to God's command the waves at once became smooth, and a firm standing-place was found for the pilgrim on the untrodden sea. The miracle once known, the sanctity of the sheikh became generally acknowledged, and his name, long after he slept under the great shadowing oaks which surround his white tomb-house, was remembered from one end of the land to the other.

CLAUDE R. CONDER.

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## MR. TYRWHITT DRAKE'S REPORTS.

### XV.

ON October 25th I rejoined the Survey at Bethlehem, where the rest of the party had arrived the previous evening from Bayt 'Atab.

The immediate neighbourhood of Bayt Lahm (Bethlehem) shows well the extent of ground which can be brought under cultivation in even the steepest wadies by means of terraces. Every available inch of ground is planted with olives, figs, and vines. At some of the neighbouring villages, for instance El Welekeh and Bittir, the water-supply is abundant, and the terraces are green with vegetables of many kinds, for which a ready sale is found in the Jerusalem market. At the latter village, indeed, many of the old olive-trees are being rooted out, and vines planted in their stead, as being much more profitable.

Tumuli. North of 'Ain Yalo we came across some very curious mounds, unlike any that I have ever seen in this country, with the exception of that near 'Amwas, which is called by the natives Rijm el Haik bint Sultan el Fenish, "the Spinning Mound of the Phœnician King's Daughter," as I mentioned in a former report. There are in all five of these mounds, of which four are on the crests of ridges, while the other is situated near the head of a shallow gully. The three largest are named Rijm el 'Attyah, El Tárúd, and El Barish. Small tentative excavations—by Captain Warren, R.E., as I am told—have been made in this last, but a thorough examination of one of them would, I think, be likely to prove of great interest.

The mounds vary from twelve to thirty feet in height, and from fifteen to fifty feet in diameter at top. The construction of all seems identical. Rough stones of no great size are closely packed with chips and a certain proportion of mould, and thus form a very compact

mass, which can only have been erected with the expenditure of much labour. Hence the *prima-facie* view is that they were piled up for some special and important purpose. The position of two of them, and the close proximity of all, precludes the idea of their being beacon-stations or landmarks. If, as seems not unlikely, they are tombs, we may hope to find objects of interest in them. The most practicable way of examining them would probably be to drive a mine to the centre along the ground level, as by this means any central interment or traces of incineration would be immediately discovered. These mounds differ essentially from those on the neighbouring Plain of Rephaim (so called), and known as Seb'a Rijúm—the Seven Mounds. These latter are merely heaps of hard limestone thrown carelessly together, and have all the appearance of being composed of the rocks and stones collected during the process of clearing the adjacent lands for the purposes of cultivation.

Jebel Ferdays (or Furaydis, as it is variously pronounced), the old Herodium, has proved not without interest. The ruins are neither extensive, however, nor well preserved. The castle on the summit was circular in form, with semicircular towers to the north-west and south, and a larger circular one to the E.N.E. The most interesting point was a circular chamber with a domed roof below the northern tower. The masonry throughout has all the appearance of the Roman or Herodian work visible at Cæsarea and Tantara on the coast.

The outer part of this castle is a slope of 35 degs., composed entirely of *débris*, and now indistinguishable from the surrounding soil. This is to be accounted for by the fact that most of the stone used in the building is very soft and friable, and rapidly disintegrates.

Below the mound to the north are the ruins of a large oblong building, with vaults on the north and east. Some on the latter side are still in fair preservation. The roof is barrel, without a keystone; an inner arch, however, has one. Windows remain in the wall of the eastern vault, about 1ft. high by 2ft. wide outside, but cut away inside so as to throw the greatest possible amount of light within.

The other remains consist of a few wells, a small clump of ruined houses, and a tank called Birket el Hammam. This was formerly supplied with water from 'Ain Urtás, which rises about 60 ft. higher. I shall presently notice this aqueduct and its construction.

Lieutenant Conder has made a plan of the ruins of Furaydis, and also of the cave variously called Magháret el M'asa, or Magharet Kharaytún, which has by many been accepted as the Cave of Adullam.

The main objection urged against this being David's lair is its position, which is said to be too far eastward, but in all other respects it is most admirably suited for an outlaw's hiding-place. The cave El Tumaymiyeh, lately visited by Lieutenant Conder, seems from all descriptions to be most unsuited for human habitation. This cave, on the contrary, is

Magharet  
Kharaytún.

dry and airy, and resembles a rabbit warren in the extent and intricacy of its passages.\*

A few words will show the strength of the position. On arriving at Bir el 'Ainayziyeh, a tank of seemingly Roman masonry, we found ourselves on the brink of Wady Kharaytún, a glen as rugged and precipitous as the Kedron at our present camp. To the left were the ruins of the monastic buildings dedicated to St. Chariton, perched on the brink of the precipice and clinging like swallows' nests to the ledges and crevices. To the right a steep, rugged zigzag descends to a broad ledge of rock leading to 'Ain el Natúf (the Dripping Spring), where even at this dry season there was a sufficient supply to fill a wine-bottle in three or four minutes. The water is collected in two little rock-hewn basins.

Halfway down the rugged path just spoken of we turned off along a ledge of rock some eight feet wide to the cavern. A huge fallen block, about seven feet high, has to be surmounted; between this and the upper rock is a space of two and a half feet. Continuing along the ledge we come to another fallen block, and mounting this we are confronted by the door of the cave. Two other openings beside the door fully command the path to 'Ain el Natúf, which consequently could not be used by an attacking party, whilst owing to the overhanging rocks a besieged party might draw their water with impunity, as the wady is too broad for archers to be able to harass them to any considerable extent.

The entrance to the cave seems the only part which has been touched by the hand of man. Several short intersecting passages would place any invader who had succeeded in penetrating so far entirely at the mercy of the defenders.

A few feet from the entrance we came into a large chamber some sixty feet long and perhaps thirty or forty feet high. A low burrow, which has to be traversed on hands and knees, leads from this to another chamber; mounting a few feet a narrow cleft leads to another large chamber, to reach which one has to descend a steep slide some fourteen feet high. From this chamber a main passage with intricate ramifications, which can only be understood by the plan, leads to the

\* I have just been talking to M. Clermont-Ganneau, who arrived at Jerusalem a few days ago, and find that the cave and ruin of 'Ayd el Miá, which he discovered and identified with Adullam, lie some five or six miles farther south than the cave of El Tumaymíyeh described by Lieutenant Conder. This position agrees fairly well with the situation ascribed to the city of Adullam by Eusebius, namely, ten miles east of Eleutheropolis. In Joshua xv. 35 Adullam is said to be in the "valley" (*i.e.*, Shefelah), which could not apply to Magharet Kharaytún if the *cave* were in the immediate vicinity of the *town*, as is perhaps most probable.

Till, however, I have seen both places I feel that I must withhold judgment, only showing how admirably adapted this cave of Kharaytún is for an outlaw's "hold."

last chamber, beyond which nothing extends but a narrow winding passage which, in no place large, at last contracts to a mere crack. The greatest length of the cavern is 550 feet.

The air of the cave was dry and pure, though earth washed down from above shows that water penetrates it in the winter. The first chamber, however, would probably always continue dry. The whole cave seems formed by water action; the sides and roof are smooth, with frequent rounded hollows, and in more than one place passages run side by side, with merely a thin slab of rock separating them. The rock is hard and very white. We found bats in some of the chambers, but not in great numbers. In one of the side passages I picked up fragments of a brass or copper fibula much corroded; this and a piece of very ancient coarse pottery were the only relics we found.

Riding from here to Tekú'a took me half an hour. The ruins at this Tekú'a place are extensive but uninteresting. To the east are many excavated caves and cisterns, but the town itself is simply a heap of ruins, the stones of which are small and friable. A fine octagonal font, ornamented on four sides with crosses and the double square, stands over a well-mouth. It is cut in the hard pink marbly stone known at Jerusalem as the Hajr el Musallabeh, from the fact of the finest quality being found in the neighbourhood of the Convent of the Cross (Dayr el Musallabeh).

Proceeding westward, my object was to find the aqueduct coming from Wady el Arúb, which runs near Bayt Fejjar at a considerable distance to the south, and proceeding to 'Ain 'Atáu at Solomon's Pools, and so by the low-level aqueduct to Bethlehem and Jerusalem. This aqueduct was first traced, I believe, by Herr Shick, of Jerusalem. Its construction differs from that of the other aqueducts, and will be described farther on. After a slight difficulty at first where the passage was subterraneous, I was enabled to trace the channel as far as the hill south of Urtas, where it had been already observed.

The wadies in this part are steep and long, consequently the aqueduct winds in and out to a wonderful extent, and probably extends to five or six times the length of the direct distance.

It seems that Urtas is generally considered as the Etam of the Bible, but I am not aware whether it is known that a spring exists a few hundred yards south-east of El Burak (Solomon's Pools), called 'Ain 'Atáu, which corresponds exactly to the Hebrew עֵינַיִם.

Of these there are no less than six connected with Solomon's Pools and Urtas.

1. This is the longest, extending from Wady el 'Arúb to Jerusalem, a distance of ten miles as the crow flies. It receives a branch from Wady el Bíyar, and again from 'Ain 'Atáu. As, however, the construction of its continuation from El Burak to Bayt Lahm and Jerusalem is different, this must be considered as a separate aqueduct. The part which I examined between Tekú'a and Urtas was sometimes cut in the rock, but mostly carried over a foundation of rubble masonry, the outer wall of

which in some places is as much as 6ft. or 7ft. high, and faced with ashlar. The channel varies from 18in. to 2ft. in width, and 1ft. to 2½ft. in depth; it is lined throughout with good cement, and covered in with loose blocks or slabs of stone.

2. Is the continuation of this, which still supplies Bethlehem, and occasionally the Haram at Jerusalem, with water. Earthen pipes set in masonry form the channel in this case, while air-holes at intervals relieve the pressure.

3. The high-level aqueduct passing through stone pipes is carried by the tomb of Rachel and the south of Mar Elias, on to the (so-called) Plain of Rephaim, whence it (conjecturally) passed above the Jewish Alms-houses, and rounding the Birket Mamilla entered the town from the north.

4. Is a ruined aqueduct, discovered, I believe, by Major Wilson, R.E. It passed near the high road from Hebrón to Jerusalem, east of El Khadhr, but recent alterations have obliterated all trace of it.

5. This aqueduct leads from 'Ain Urtas along the northern side of the valley to Birket el Hamman at Jebel Furaydis. The upper part is cut in the rock. Lower down the channel rests on a substructure of rubble and large stones. Before reaching Jebel Furaydis all traces of it are lost in the soft chalky formation, but the direction shows its destination, which is further confirmed by the difference of level between 'Ain Urtas and Birket el Hamman.

6. Is an aqueduct traced by Lieutenant Conder from Urtas to a ruined Birket called Kasr el Tahúneh, along the south side of Wady Urtas. The natives assert that this also went to Jebel Furaydis, but this is impossible.

The construction of all these aqueducts, the masonry of Solomon's Pools, and the appearance of the cement used to line the channels, seems to me to be Roman work. This, too, seems probable on referring to Josephus' *Antiq.* xviii. 3. 2, and *Wars*, ii. 9. 4, where we are told that Pontius Pilate made an aqueduct with the Corban, or the money from the Temple treasury, bringing the water from a distance of 200 (in the latter passage it is 400) furlongs.

Mar Saba. The monastery, or properly Laura, of Mar Saba, clinging to the precipitous side of Wady el Nar, as the Kedron is called, surrounded by the ruins of numberless hermitages built on rock-ledges or in hollows and caves, is too well known to need description here. The surrounding country is now a scene of utter desolation, a glaring wilderness of steep chalky hills strewn with flints and loose stones. Yesterday we had occasion to go to a point some seven miles distant in a direct line, and this took us three and a quarter hours to ride. Descending into Wady el Nar we crossed it and wound up a side valley till we reached its head. For some time our path led us up and down the heads of numberless valleys, but soon we found ourselves among rocks and ravines, where the horses could scarce find a footing. Tired of this, and finding that the guide knew but little of the country, I

struck upwards to a watershed, along which we travelled with ease, though the paths, originally made by, and intended for, goats, afforded barely sufficient footing for the horses, who by one false step would have been precipitated, in some cases several hundred feet, down slopes varying from 30 degs. to 40 degs. Descending at last an almost precipitous rocky slope, we reached Wady Dabbár, one of the most important drains of the country east of Jerusalem. Here we found two caves hewn in the side of the valley and filled with rain water. The lower consisted of two tunnels 40ft. long, and separated by a wall of rock, while in front a wall of rough masonry formed the cave into a cistern. The upper cave was deep and full of water.

Passing onwards we ascended a rolling spur, and by a rugged Nagb, or pass, mounted to the crest of the ridge, at the east point of which was to be our point of observation. Here we found two cairns of large heavy stones. The one was roughly circular, but the stones were strewn without order. The other was smaller, but appeared to have been in the form of a circle some 15ft. in diameter. They are known to the Arabs as El Tabz Ektayf, and are the only monuments of the kind I have yet observed in the country, though they are common in Sinai and the Badiyet el Tih.

There are no villages in this wilderness, and but two or three ruins. A few wells exist from which the Arabs procure their water, but there is absolutely nothing of real interest in the whole region. The Arabs are divided as follows:—To the south the Ta'amireh; near Mar Saba, El Abbaydíyeh; north of these El Hetaymát, El Sawaháret, El Wad, and El 'Arab Abu Nusayr, who extend as far as Wady Kelt and Jericho.

NOTE.—Having occasion to ride up to Jerusalem the other day I found most interesting repairs going on in and outside of the Kubbet el Sakhráh. All the *Kysháni* (encaustic tiles) have been stripped off one of the faces of the outer wall and the original masonry lies disclosed. The present pointed windows, six in number, are built within semicircular arches, and above these are thirteen arches also semicircular, which originally formed an open balustrade. I have taken measurements and sketches of the arches, cornices, &c., and will send them as soon as I can find time to finish drawing them out.

As this discovery seems important, I have asked Lieut. Conder, who has occasion just now to go up to Jerusalem, to have a photograph taken before the tiles are restored to their former places.

## THE EDINBURGH REVIEWER ON THE TALMUD.

IN the July number of the *Edinburgh Review*, the author of the paper on the Talmud remarks on my version of the "Tract on the Measurements of the Temple" (see *Quarterly Statement* of the Palestine Exploration Fund for 1872, p. 12), that it is translated with "less than absolute accuracy."

The instance given to prove this observation is that "the translator has provided the guards of the Temple with cushions."

It is the author of the Mishna, and *not the translator*, who has done so. If the reviewer be acquainted with the Hebrew language he must know that the word (בִּסְתִּי) means "his cushion" or "pillow." And though Rabbi Judah Hakkodesh says afterwards that "his garments (בְּגָדָיו) were burned" yet the explanation is obvious. The drowsy Levite reclined in his clothes, which became his cushion, and when he was found sleeping they were set on fire by the captain of the watch.

JOSEPH BARCLAY.

## ASHKELON.

THE following letter, by the Regius Professor of Hebrew at Oxford, will be read with interest. It has been despatched to the Society's explorers in Palestine, in the hope that the questions raised by Professor Pusey may receive a satisfactory solution:—

DEAR MR. GROVE,—Thank you very much for your reply. I had, perhaps, better say what my ground is for thinking that the Ascalon of the Crusades cannot be the Philistine Ashkelon.

You have yourself, I see (*Dict. of Bible*, Jabneel), drawn attention to the Maiumas of Gaza and Ascalon, and Jamnia. There were also two Azotus', one by the sea (see Reland, page 215). The three, then, Gaza, Jabneel, Ashdod, were inland; and were, I suppose, like Athens, purposely so built for fear of pirates. Even Gaza, which was nearest, was (it appears from Soz., v. 3) distinct in boundary from its Maiumas. They had fields (ἀγροί) belonging to each, having altars between them.

The probability, on the ground of its having a port, and from the three other cases, is that Ascalon itself was inland. Ascalon and its Maiumas must have been distinct cities, since the bishop of each signed a synodical letter inserted in the Acts of the Council of Constantinople, A.D. 536, as also the Bishop of Gaza and Maiumas Gazæ. (It is in col. 1163, 1164 of the *Conc. T. v.* ed. Colet.) But it is so well-known a rule that there cannot be two bishops of one town, that when Julian had annexed the Maiumas Gazæ to Gaza, the Bishop of Gaza on a subsequent vacancy in the episcopate of the Maiumas claimed that its clergy should on this ground be subject to him, though it was locally distinct. The provincial council refused it, because the civil privileges had been

taken away from Maiumas Gazæ by a heathen prince, on account of its Christianity. But, according to all descriptions, Ascalon has too little depth from the sea to have ever contained two towns, and its outside boundary is very marked, being built along a natural ridge, in the shape of a bow; the chord, as William of Tyre describes it, being towards the sea.

2. Benjamin of Tudela, who must have been on the spot, says that "Ashkelona is new Ashkelon, which Ezra the priest built on the sea-shore, and at first they called it Benibra, and it is four parasangs distant from the former Ashkelon, which is desert." His account was naturally the tradition of the Jews whom he found there. Benjamin of Tudela's pronunciation of the modern town is Ashkelonah (as in the time of the Crusades it is Askelona), whereas, in his explanation, he speaks of "new Ashkelon," "the old Ashkelon" keeping the Biblical termination. His account is too concise for him to give an explanation, but Benibra is doubtless a Greek corruption for Bethnimrah (as Bethnabris in Eusebius is for the Bethnimrah, or later, Bethnimrim, of Gad), and the sweetness of its waters (the *aque potabiles* within it) is noted by successive writers, I suppose because, so near the sea, they might be expected to be brackish. I think that the tradition in his time that there was an Ashkelon which lay waste, is remarkable, though the Jews, his informants, might be inaccurate as to its distance, as they were not much concerned about the site of a desert place.

I myself think it most probable that the Askalon which Herod beautified was the present Askalon; and that it, the Maiumas Ascalonis, being the more considerable, obtained the name of Ascalon, as Windsor and Sarum must, I suppose, have been originally New Windsor, New Sarum, and yet in early times have been called absolutely Windsor, Sarum; and what is now called Shoreham was, in my memory, still New Shoreham. You will be familiar with other such instances, old and new. There must have been great accumulations of sand, which may have buried the old Ascalon, since the sands are only held back by the walls, with which they seem to be almost level, from burying the new Ascalon.

As you take such kind interest in my question, I thought I ought to tell you my grounds.

With best thanks,

Yours very faithfully,

Nov. 28, 1873.

E. B. PUSEY.

P.S.—Looking at Porter's map, there is apparently a plain enclosed in a sort of triangle between the roads from Burbareh to El Mijdel and that which turns off to Askulân. The places which he mentions (p. 268) are not marked in the map. "One mile from Burbareh is Jiyeh; half an hour beyond it is Beitimah," which must have been, I suppose, where the two roads part. For Porter says, "our path turns to the north-west, along the border of the sandhills. In twenty-five

minutes we come to Nalieh, a poor village on the east side of a *low narrow plain*, which appears to be sometimes flooded in the winter. A ride of ten minutes across the plain, and twenty minutes more *over the broad ridge* of sand, brings us to the gate of Ascalon."

1. But the Jews (*Josephus*, B. J. 3. 2)} were assaulting Ascalon. If, then, *that* Ascalon were the present Ascalon (which I am inclined to think), where is "*the whole plain*," which was "broad, and the whole of it suited for the action of cavalry" (*πάν ἡπτάσιμον*), over which the flying Jews were scattered and 10,000 killed?

2. What is the depth of Ascalon? Is it so built that there could be two distinct cities within its present walls, so that one should be an inland city, the other its port? In a description which I have seen, there is mention of a creek running up into the present city; though the harbour was purposely destroyed by Sultan Bibars, in order to preclude any renewed landing of Crusaders there.

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VIEW FROM SHU'JARET EL ITHLEH (PROBABLE SITE OF GILGAL), NORTH WEST.

*Showing Site of Jericho of Joshua, and the traditional Mount of Temptation, to which the spies fled. The high hill is a prominent point on the watershed, used as a trigonometrical point by the survey party.*

THE  
PALESTINE EXPLORATION FUND.

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P R E F A C E.

THE voluminous reports with which we commence our account of the year's work will be found to tell their own story without prefatory explanation. From Lieut. Conder we have additions to our knowledge of Gezer, where he observed the surest proofs of the former existence of a town—in tombs, quarries, oil-presses, and fragments of pottery; of Ramleh, with its Church and its White Mosque; of El Medyeh, the probable site of the tombs of the Maccabees; of Gibeah, a site of extreme interest in connection with the history of Saul; and the site of Ai, on which Major Wilson has already given the Fund a valuable paper (*Quarterly Statement*, First Series, p. 123).

Lieut. Conder has sent also reports on the excursions and observations made during his last summer holidays about Bludan. But the point of greatest interest in his reports will probably be the passage in which he describes the site of Gilgal. It has been known for many years that a name of Jiljul, or Jiljilia, existed in the neighbourhood of Er Riha; but although a German traveller, Herr Zschokke, discovered the spot in 1866, and fixed it by compass angle, it was found impossible by Lieut. Conder to identify the place in his first attempt. He has now, however, succeeded in finding it. Although, with the few data in our possession, it is impossible to speak with certainty, it will be at least acknowledged that the spot described by Lieut. Conder comes nearer than any other to the requirements of the case. It is not the traditional site assigned by the early pilgrims, Arculphus and Willibald, which is at Kasr Hajlah, five miles from Jericho. Lieut. Conder has carefully examined the tract from the Jordan mouth to Ras Feshkah for traces of the Cities of the Plain, but finds none at all. There is, however, a curious artificial mound, called Tell el Rashidújeh, at the Jordan mouth; and it seems probable, as he

points out, that the gradual rise of the level of the plain, caused by the constant washing down of the soft marls from the western hills, would effectually cover over any such ruins, did they ever exist, below the surface. Lieut. Conder's paper on the Identification of Scopus may be read in conjunction with M. Clermont-Ganneau's remarks on the same subject. Mr. Tyrwhitt Drake's reports partly cover the same ground as those of Lieut. Conder. His remarks on the boundary line of Judah show that he does not agree with some of the opinions of M. Ganneau. But all the three reports must be taken together; each is independent of the other, and each represents opinions sometimes different, but always based on the same facts. The real importance of our explorers' reports will always lie, first, in the facts themselves; and secondly, in their indication of the direction in which the facts seem to point.

We have received from Mr. Tyrwhitt Drake an extremely valuable paper on "Modern Jerusalem: its Population, Religions, Trades, &c.," which has not been introduced here, because it seems to the Committee beyond the limits of their work to describe a modern city. No doubt Mr. Drake will publish it elsewhere.

The simultaneous exposure of the so-called "Moabite pottery" by M. Ganneau and Mr. Tyrwhitt Drake will be found on p. 113. The letter of M. Shapira himself to the Editor of the *Athenæum* is added, to show that the vendor of the pottery has not yet accepted the fact of their forgery.

The reports of M. Ganneau are those of a careful and minute archæologist: the illustrations given with them are from the pen of M. Lecomte. We have already received more than twenty sheets of plans, sketches, and drawings, of which these are a specimen.

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#### FINANCIAL POSITION OF THE FUND.

It has been decided to publish every quarter a statement such as the following, in order that Subscribers may know the actual position of the Fund.

Received from Jan. 1st to Mar. 26th, 1873 :—

By Subscriptions and Donations	...	...	£858	19	4
Profit from Collections at Lectures	...	...	88	4	5
*Sale of Publications	...	...	36	9	7
*Sale of Photographs	...	...	21	3	6
<hr/>					
Balance in hand March 26...	...	...	469	7	10

\* Including those sold at Lectures.

# THE SURVEY OF PALESTINE.

LIEUT. CLAUDE R. CONDER'S REPORTS.

## XVIII.

GILGAL AND THE PLAINS OF JERICHO.

'AIN EL SULTAN, *December, 1874.*

I AVAIL myself of the first spare day since last I wrote to send a monthly report.

The map shows our progress under the new arrangements which, Survey: by a certain amount of extra work on my own part, I have been able to make, doubling the detail parties by addition of myself and Lance-Corporal Brophy, and also doubling the observation parties, Sergeant Black and Corporal Brophy being accompanied by Mr. Drake, whilst Corporal Armstrong and myself take simultaneous observations at another point. We are thus enabled to reach, and even pass, the average which I had formerly promised. Moving from Bayt 'Atab to Bethlehem, and thence to Mar Saba and our present camp, we have laid in 280 square miles in a month. Lately, however, the weather and other causes have delayed us considerably, but the camp being well and centrally placed we have filled in 180 square miles of its neighbourhood, and the average is still above 250 square miles per month.

The labour of surveying the Zor or lower bed of the Jordan, as well as the land lying immediately north of the Dead Sea, was very great. The mud was so deep that it was impassable for horses, and a great part had to be done on foot. Sergeant Black and I have, however, succeeded in getting it finished at last in a satisfactory manner.

The following plans and surveys must be added to the list of forty-one already sent home:—

1. Plan of Cave Umm el Turraymín,  $\frac{1}{240}$ .
2. General plan of buildings, Jebel Furaydis (Frank Mountain).
3. Plan of circular building on the Tell J. Furaydis,  $\frac{1}{480}$ .
4. Plan of lower building, J. Furaydis,  $\frac{1}{480}$ .
5. Plan of cave at Kharaytín (traditional Adullam).
6. Plan of chapels, Jebel Koruntil,  $\frac{1}{240}$ .
7. Frescoes in central chapel.
8. Kasr el Yahúid (Double Plan,  $\frac{1}{240}$ ).
9. Kasr el Hajlah (Double Plan,  $\frac{1}{240}$ ).
10. Dayr el Kelt (Double Plan,  $\frac{1}{240}$ ).
11. Bridge near the same. Plan and sections,  $\frac{1}{240}$ .
12. Castle at Khan Hadhrura,  $\frac{1}{240}$ .

The fitting of the triangulation, large and well-shaped, with the old one, as tested at the important point of Kurn Sartabeh, is very satisfactory.

The Mar Saba camp produced scarcely anything of interest beyond the discovery of ruins belonging to Crusading vineyards in a desert now without a tree or a drop of water. It was, however, important for its geological indications. The present camp is surrounded with places of the greatest interest, of which I propose to give some account.

The total amount of country surveyed is now over 2,200 square miles, or one-third of Palestine.

Gilgal.

The determination of this site has always appeared to me the most important and interesting point in this part of the country.

Dr. Robinson, in his earlier travels, says that he was able "to ascertain definitely that no trace of its name or site remains." He would, however, place it in the neighbourhood of the modern Er Riha, in accordance with Josephus's description, "on the east border of Jericho ten stadia from that city and fifty from Jordan." He was, indeed, informed that the name Jiljilia existed in the neighbourhood, but failed to identify its position.

I am indebted to M. Ganneau and to Major Wilson for directing my attention to the subject.\* A German traveller (Herr Zschokke) travelling in 1865 speaks of the discovery of a Tell Jiljul, which he fixes by a compass angle to Kasr Hajlah. Yet, although I went to the spot in M. Ganneau's company, we failed to find the place, and it was not till after his return to Jerusalem that, on revisiting the spot, I found the name was still known to a few of the older inhabitants of Er Riha, though not to the Bedouins who now accompany us. I took every precaution in making inquiries, which I put in various forms to three or four persons, and came to the conclusion that the name, though almost lost, still lingered in the memory of a few.

On the north side of the great Wady Kelt (the traditional Brook Cherith), about one and one-third English miles from the tower of the modern Jericho (Eriha), towards the east, is a solitary tamarisk known as the "Shejaret el Ithleh," to which a local tradition points as standing on the site of the "City of Brass."

The tradition of its siege by a great Imam, of the fall of its walls when he had ridden round them, of the destruction of the infidel inhabitants, and of the miracle of the sun standing still over Koruntil at the Sultan's command; all these confused reminiscences of the great events of the life of Joshua and of the siege of Jericho point to a connection which may, indeed, date no further back than early Christian times; or, on the other hand, may be of really valuable antiquity, attaching the site to the history of the Jewish invasion.

There are not, however, any extensive ruins on or near the spot. A

\* Herr Zschokke was chaplain to the Austrian Consulate at Jerusalem, and published a pamphlet on the identification of Jiljul with Gilgal, which was printed at Jerusalem in 1865.

pool, choked with soil, scattered stones, hewn but of ordinary size, and a large cemetery of tombs, seemingly Arab, though not strictly directed to the Ka'abah, were all we at first observed. On revisiting the place I found that the name Birket Jiljulieh undoubtedly applies to the pool in question, situate about 150 yards south-east of the tree, built with walls, some 2 feet 6 inches thick, of rolled pebbles, 6 to 18 inches in diameter, well packed. No cement is visible. The dimensions of the Birket are about forty paces by thirty.

The remains which will, however, prove perhaps of greatest interest are situate south-east and east of this point, being a number of small mounds, seemingly artificial, and known as the Tellayla't Jiljulieh. There must be about a dozen of them within a square mile, eight or ten feet diameter, and not more than three or four feet high. They are said to be very ancient, and remains of the City of Brass. The angle shows that it was to one of these that Herr Zschokke obtained the name Tell Jiljúl. I hope again to visit the spot and open one of the mounds, making a sketch and special plan of the site at the same time. It may seem bold to propose that these mounds are traces of the permanent Israelite camp on the spot, yet we know that nothing in Palestine is more ancient than are such earthworks.

It might be objected that perhaps the name is only the lingering remembrance of a Crusading or early Christian site for Gilgal, the tradition of a tradition, but the Crusading site seems to have been placed far south at Kasr Hajlah; and not unnaturally so, for at 'Ain Hajlah exists the only spring of fresh water in the plains of Jericho, and the road from the ford of El Henu to Er Riha passes close by. Even in earlier times Arculphus mentions the church of Galgalis (A.D. 700) as five miles from Jericho, evidently referring to the same site. It is, however, only fair to notice that Willibald (721—27) places it five miles from the Jordan; from it he went to Jericho, seven miles from Jordan. This would apply to the site of Jiljulieh at El Ithleh, but it would also, though perhaps less easily, apply to Kasr Hajlah, which is indicated by the earlier author, unless a corruption be thought to have crept into his text.

The long time during which the camp at Gilgal was maintained points clearly to its having been well supplied with water. There was also perhaps a city on the same site, although it does not seem by any means certain that this spot was the Gilgal visited by Samuel in his yearly round, which should rather be sought in the mountains; perhaps at the modern Jiljilia, situate south of Selfit and north of Attara. In any case it becomes, as the early traditions fully recognised, a point of great importance to find a water-supply sufficient for a large host.

On visiting Birket Jiljulieh to-day I found a rapid, though muddy, stream flowing right through it. This is generally diverted into other channels for the irrigation of the gardens of Jericho; but the very existence of a birket shows that the site was once well supplied with water, the most natural source for which would be the 'Ain el Sultan.

Jiljulieh is on the direct road from the upper ford at Kasr el Yahud (St. John on Jordan), about four and a half miles from this point, and one and one-third from Er Riha. The latter distance is exactly that given by Josephus from Jericho, and reading thirty for fifty (a very easy clerical error in the Greek) we get the exact distance from Jordan also correctly. The whole plain is only about fifty stadia broad, and thus the present reading will hardly allow a position for Jericho in the plain.

The interest of the site is great, not only for its own associations, but as showing the ford by which the Israelites would have prepared to cross the Jordan. Like many other of the sites which date from so remote an antiquity, in a country subject to continual inroads and devastation, there must naturally be a certain amount of doubt or difficulty attached to its identification, but it seems certain that no site previously fixed upon comes so near to the fulfilment of all requisites of the case.

'Ain el  
Sultan.

Difficult as it seems to be to fix the site of the later cities of Jewish, Roman, and Byzantine times, there is happily but little doubt as to the position of the Jericho destroyed by Joshua. The "Sultan's Spring," or Fountain of Elisha, is indeed the only natural site for a city in the whole country surrounding it. Three fine springs are found within but a little distance of one another, while the rest of the plain can show but one, and that far less considerable. Nothing, indeed, but the curse on the site and the terror inspired by the subsequent fulfilment of that curse could account for the displacement of the city. The flight of the spies to the hills points to the same position. From modern Jericho flight in any direction would be equally dangerous, but from 'Ain el Sultan, a deep ravine covered with bushes of the Zakkum and Spina Christi, and filled with a jungle of cane, leads to 'Ain Duk (the ancient Doch or Dagon), at the foot of the cliff of Koruntil, amongst whose caves and rocky precipices the two Israelites, flying to "the mountains," might lie hid in safety.

The ruin at the spring itself seems to be that of a small Roman temple, such as is often found at springheads. Other foundations farther north contain capitals and shafts seemingly Byzantine. In the direction of Er Riha, foundations, low mounds, channels for water, and portions of roads hidden in the thorny copse which here covers the plain, seem all to point to the former existence of a great town.

Still farther south, near Wady Kelt, two large mounds or tells command the road as it descends the narrow pass from Bayt Jabr. These have been considered as remains of Roman Jericho; pieces of wall and, perhaps, of an aqueduct, with the *opus reticulatum* of its masonry, seem to confirm this theory. Close by is the fine reservoir, fed by aqueducts, known as the Birket Musa, measuring about 190 × 160 yards.

There is a very large number of tells in the neighbourhood, all of the most important having been examined and excavated by Captain Warren. Of these Tell el 'Ain el Samarât, Abu Zelef, Abu el Hindi and el Arâis, with the Tullul abu el Alayj are true tells, artificial mounds with a central building of unburnt brick. Tell Dayr Ghana'm, el Jurn,

el Mutlub, Derb el Habaysh, el Kus, el Mefuriyeh and Moghyfir, with others still less important, are but heaps of *débris* formed by ruins of various date.

Of our visits to the Hajar el Esbah, to Gumran, and 'Ain Feshkah, I have nothing myself to relate. Nothing is more striking, however, than the general aspect of the country we have thus passed over. The broad plain, bounded east and west by the steep rocky ranges, at whose feet lie the low marl hillocks of a former geological sea; the green lawns of grass leading to the lower valley, where, in the midst of a track of thick white mud, the Jordan flows in a crooked milky stream, through jungles of cane and tamarisk,—are all equally unlike the general scenery of Palestine. Round Elijah's fountain a tangled wood of Zakkúm, Spina Christi, and near the water an occasional castor-oil plant, spreads out to Jericho. The yellow berries of the deadly solanum appear everywhere. The chorus of birds and the flow of water are sounds equally unusual and charming in the stony wildernesses of the Holy Land.

The palm groves of Jericho have disappeared since the eighth century. A solitary survivor grows close to the tower of Er Riha, and in the valley north of Kasr el Hajlah I met with another clump. When the copses of the fountain are left behind, and the first descent is made into the flat mud valley below the half-consolidated marl cliffs at Kasr el Hajlah, then we are at once reminded of Josephus's expression, that the Jordan flowed "through a wilderness." The views of the lake—with its shining, oily surface, its salt and sulphurous springs, its brown precipices, with the fallen blocks at their feet, its white drift logs, crusted with salt, brought down by the freshets in the river, and now stranded along the crisp, shingly beach—are perhaps even more striking; whilst the soft shadows and rosy suffused light in early morning, or at sunset, make the trans-Jordanic ranges all an artist could desire to study.

Were it not that negative information is, next to positive, the most interesting and useful, I should scarcely have touched on this subject, but having carefully examined in person the whole tract from Jordan mouth to the Ras Feshkah, I do not hesitate to say that, if the cities of the plain were within this area, all trace of them has utterly disappeared. The ruins, which have been described in language not sufficiently moderate for the cause of truth, at Gumran and at Rijm el Bahr, I have visited. The former are probably late; the heaps of unhewn stone at the latter (which seems to have been at one time the traditional site of the Pillar of Salt, judging from an expression of Maundrel) are, I think, unquestionably natural. A curious artificial tell—Tell el Rashidújah, situate near the Jordan mouth—is the only evidence of man's work I could find on that side. It is strewn with ancient pottery, iron coloured and almost iron in hardness. It seems to me certain that the gradual rise of the level of the plain, caused by the constant washing down of the soft marls from the western hills, would effectually cover over any such ruins did they ever exist below the surface. The tract, however, presents literally nothing beyond a flat expanse of semi-consolidated mud.

The Plain:

The Cities  
of the Plain.

'Ash el  
Ghorab.

I am tempted here to mention a curious possible identification of this point, though perhaps it will not stand criticism. The hill in question is a sharp conical peak, its name signifying, "The Raven's Nest." Two miles north-west of this is a wady and mound, known as the Tuwayl el Diab. Here, then, we have the two famous Midianite leaders' names—Oreb, the Raven; and Zeeb, the Wolf—in connection, reminding us of the passage (Judges vii. 25) relating that the men of Ephraim "slew Oreb on the rock Oreb, and Zeeb at the winepress of Zeeb." There is nothing in the Bible or Josephus to show that these places were east of Jordan, and it is quite possible that the kings, flying southward to Midian, sought to cross by the fords near Jericho, which had, however, been already seized by their enemies. The only difficulty is in the subsequent passage by Gideon at Succoth higher up. The peak is most remarkable, and would be well fitted for a public execution.

There is another point which might perhaps confirm this idea. Elijah, living by Cherith, was supported, as some suppose, by a tribe of Arabs living at an Oreb, or having that name as an appellation. The proximity of the 'Ash el Ghorab to Wady Kelt, the traditional Cherith, is interesting in connection with such a supposition, and it has been thought that this Oreb might be identical with the rock Oreb in the history of Gideon. I feel, however, that the suggestion is one not to be put forward as more than a possible one.

Convents.

The great events of which the Plain of Jericho had in early times been the scene, together with its traditional connection with our Lord's temptation, and actual interest with regard to his baptism, and other events, attracted the Christians of a very early age to this part of the country. Hence the precipices of Koruntil were burrowed with hermit's caves and small chapels, already described by Dr. Tristram, who seems amongst the earliest explorers. We were engaged for a morning in visiting those of most interest, planning the chapels and sketching the old and blackened frescoes on their walls. From Justinian's time the plain began to be covered with monastic edifices; the splendid cistern at Kasr el Yahud (St. John on Jordan), mentioned by Procopius as the work of this emperor, is still visible, in an almost perfect condition. The grand aqueduct from the 'Ain el Sultan to it is no doubt of the same date. The cistern is thirty feet deep, and is supported on rows of piers. The aqueduct is merely a long mound, showing hardly a trace of the channel, but running straight as possible through the copse over the flat plain between the mud mounds, until disappearing close to the convent.

The convent itself was destroyed and rebuilt in the twelfth century, to which date, in all probability, the ruins I have planned belong. The most remarkable point about the building is the use of an apparently artificial stone, containing flints and fragments of harder stone. The chapel is subterranean; the outer stones are drafted; fragments of tessellated pavement remain, and some inscriptions, or graphitæ, carved on

the walls. This famous establishment, with the small chapel on the banks of Jordan belonging to it, are mentioned by almost every traveller of mediæval times, and the "fair church of St. John the Baptist" was still standing when visited by Sir John Maundeville in 1322, but ruined before the year 1697.

In the fifth century there was another convent of St. Panteleemon in the plain, and in the twelfth the destruction of one of St. Gerasmus, near the Jordan, is mentioned. At this period of revival the greater number of these constructions were rebuilt, including the convents of St. Calamon and St. Chrysostom.

It does not appear that either of these names applied to the Kasr el Hajlah, which, however, no doubt dates from the same century. The ruins of this fine old religious fortress are better preserved than those of Kasr el Yahud, and the plan occupied nearly two days, having never, I believe, been previously taken. Though much shaken by earthquake, its vaults are entire. The apse of the large chapel remains, and the whole of the smaller, including the octagonal drum supporting its dome. The surrounding walls are entire, except on the north. The frescoes are much defaced, almost every inscription and all the faces being purposely erased. A certain limit is given to the antiquity of the building by the occurrence of the name of John Eleemon, Patriarch of Jerusalem in 630, attached to a figure. Crusading graphitæ—the names "Piquet" and Petre de — le Senchal—are scratched deeply, as though with a dagger, on the haunch of an arch. Tesselated pavement is found in fragments. The kitchen is entire, with its row of little ovens. Other cells, with a subterranean chapel, are covered with crosses and religious signs. The most curious frescoes are those representing saints receiving the white resurrection robe from attendant angels. They are fresher in colour and no doubt later than those of Koruntil.

Tell Moghyfir, the Gilgal of some authors, is the site of another such convent, now entirely destroyed. Scattered stones, with fragments of frescoes and Greek letters, painted pieces of tessellated pavement, a small cistern (well lined), and ruins of aqueduct channels leading to the spot, are all that remains. It seems probable that we have here the site of the convent of St. Eustochium, mentioned by Willibald in 721 as in the middle of the plain, between Jericho and Jerusalem, a description applying perfectly if he travelled by the Mar Saba route to the capital.

Kh.el Mifjar, north of 'Ain el Sultan, shows ruins excavated by Captain Warren, who found the apse of a chapel pointing south (perhaps the transept of a great church), remains of houses, and a chamber with frescoes; these have now disappeared. The site covers about 300 yards square, and is evidently that of an important establishment.

Yet another convent is to be found in the hills overhanging the north side of Wady Kelt, and a small rough chapel in Wady Dubbar marks the site of Dwyr el Mukelik. Thus we have five existing ruins, without

counting the church mentioned by Sir John Maundeville, and still remaining on the summit of Koruntil, whilst historically we know of the previous existence of no less than seven, of which, however, only three are identified.

Dayr Wady Kelt merits a more particular description. Like every other monastery in the hills, it is hung on a precipice. It consists of a series of cells, and a hall supported on vaults, through which lies the entrance. The chapel, perched close to the rock, is not oriented, being in a line of 49 degs. M., but the east window, beside the apse, is so turned as to bear at an angle 90 degs. M. The evident reason of this is the direction of the rock scarp. The rest of the building is not in the same line as the chapel. There are at least three dates discoverable, as two layers of frescoes cover the wall, whilst the inscriptions of the newest are covered in part by the piers supporting the ribs of the roof. The chapel is built of dressed stones, whilst the cells and vaults are of masonry roughly squared. This part bears every sign of twelfth century work. Perhaps the little side chapel, with rock-cut chamber, and the vault containing ancient bones, to which a corridor covered with frescoes representing the Last Judgment leads, is the oldest part of the building. Numerous caves, now inaccessible, are visible in the face of the cliff, which for a distance of eighty feet is covered with frescoes, now almost entirely defaced. One of these cells has at its entrance a heavy iron bar placed vertically, no doubt originally to support a rope or ladder. Like the upper chambers at Koruntil, this is probably a funeral vault.

A badly cut inscription in Arabic and barbarous Greek, over the more modern part of the door, commemorates a restoration by a certain Ibrahím and his brothers.

Aqueducts.

The examination of the very complicated system of aqueducts which are connected with the old irrigation of the plain, formed one of our principal investigations. I have had a separate plan made of them, and will endeavour to explain their arrangement. There are in all six springs from which the channels are fed, and twelve aqueducts. The springs are 'Ain el Awjeh, 'Ain Nuwaymeh, 'Ain Dúk, 'Ain Kelt, 'Ain Farah, and 'Ain el Sultan. From the first of these, situate about eight miles north of Er Riha, a cemented channel follows the course of the Wady el Awjeh on the south side. On gaining the plain it crosses the valley, and runs away north, having no less than five branches running about a mile from it at right angles, at intervals of a quarter to half a mile apart. There is no doubt that this is simply intended for irrigation. One branch leads to a mill. A second and far more important branch leaves the first aqueduct at about one and a half miles from its source. It winds away south in a very devious course for three and a half miles, when it reaches the two springs of 'Ain Dúk and 'Ain Nuwaymeh, situate only a few yards apart. It crosses the valley on a curious bridge of many arches, all pointed, and apparently late or modern in date. From this point the aqueduct inclines eastward and follows a course equally undulating for upwards of four direct miles,

passing through various cisterns by Kh. el Mifjar, and over another bridge with pointed arches, having a well cut cross on the haunch of one of the arches. A shorter aqueduct from 'Ain el Sultan, joins this at Khirbet el Mifjar, and has pipes for the water channel instead of the cemented channel of the other. This devious course terminates at length at a birket called Heydar, a cemented cistern, the total length from 'Ain el Awjeh to this point being over eight miles.

We next turn to the aqueduct from 'Ain Dúk, which is there joined to the last. It feeds the Tawahin el Sukkar, or Crusading Sugar Mills, and crossing Wady Kelt by a bridge now broken, terminates in the same ruins, including a birket not far east of Birket Musa. A fourth aqueduct branches from No. 2 (the long one) just before the latter reaches 'Ain Dúk, and runs east to the plain. I feel but little hesitation in attributing these aqueducts, with their branches, to Crusading times, with probable subsequent restoration by Moslem workmen.

We have next to consider no less than five aqueducts which follow the course of Wady Kelt, three from 'Ain Kelt and two from 'Ain Farah. A single channel runs from the former spring, crossing the tributary wadies by small bridges, and showing a cemented channel. Within a quarter of a mile east of Dayr el Kelt, it reaches a fine bridge placed at right angles to its course. This structure, now broken, reaches a height of over 60ft. above the bottom of the ravine. But the aqueduct is at a level nearly 100ft. higher, and is boldly brought down a slide of about half over the face of the rock, and enters the channel of the bridge on a curve. At the first, or north buttress, there seems to have been a shaft, and part of the water descends to a still lower level, and follows the north side of the wady, passing beneath the convent. The remainder crosses by the bridge, which again turns sharply at right angles, and another shaft allows part of the current to descend some 30ft., separating into two aqueducts at different levels. Thus from this remarkable bridge we have no less than three channels to follow, without counting the branch which passes above Dayr el Kelt at the original level of the single channel, and thus supplies the convent with water. The fact that the water has descended the great shoot, is shown by the sedimentary deposits found upon it. The sharp turns were no doubt intended to break the force of the fall, but must have severely strained the bridge by the unequal pressure so produced. The good masonry, round arches, and cement filled with wood ashes, which are remarkable in its structure, seem to point to its having been an early Christian work. I need scarcely say that we carefully measured and examined it throughout.

To follow the northern aqueduct—it continues to the bottom of the pass, and then turning north, terminates near the Sugar Mills. It has a cemented channel in which pipes are laid.

The two southern courses flow parallel to the mouth of the pass, where the lower terminates in a birket, and the upper disappears. They are structural throughout, and opposite Dayr el Kelt there is a fine wall

of well-cut masonry, on the top of which the upper aqueduct runs, whilst a channel for the lower exists in its thickness below, the wall being built up against the cliff, which was too precipitous to afford a channel.

The date of the next two aqueducts is possibly earlier. Side by side they run from 'Ain Farah, following the south side of Wady Kelt considerably above the last pair. At one point they cross and recross, and in many places they are tunnelled. One of the bridges, a solid and massive structure, placed to carry the high level, at a point where the low level, by a bend, is able to cross' without, is remarkable for its rubble masonry pointed with dressed ashlar, for its rough but pointed arches, and for a vault or cistern probably of Crusading date. A second vault, known as Bayt Jubr el Fokani exists lower down, and here the aqueducts disappear. They run seemingly in tunnels to Bayt Jubr el Tahtáni, a small fort commanding the opening of the pass, and of Crusading date. Here the upper channel descends by a rapid shoot, and filling the birket immediately south of the fort, runs on to the great Birket Musa, which no doubt it was mainly intended to supply. The course of the lower channel, which is cemented without pipes, is not so easily made out, and it seems more than probable that the two unite at the tunnel and form one stream.

Only three more aqueducts remain to trace, which are fed by the 'Ain el Sultan. No. 10 crossing Wady Kelt by a bridge still perfect, with pointed arches (evidently a restoration), is traceable into the neighbourhood of Tell Moghyfir, which it was doubtless intended to supply. Here it is lost, and careful search makes me feel certain that it went no farther south. No 11 is a fragment also in the neighbourhood of Tell Moghyfir, seeming from its direction to have branched out of No. 12, the great aqueduct from 'Ain el Sultan to Kasr el Yahúd (a distance of six miles).

I have not been able to find any traces of cultivation farther south than Tell Moghyfir, or any aqueduct to Kasr el Hajlah, which must have depended for its water-supply on the great rain-water cistern, and on the neighbouring spring of 'Ain Hajlah.

Our best thanks are due to Mr. W. K. Green, the British representative at Damascus, for his kindness in the instruction of Corporal Armstrong and of myself in the art of bird-stuffing. We now find the full advantage of the acquisition on entering a region interesting as is the Jordan Valley. In a little over two months the collection has mounted up to nearly one hundred specimens. The large majority have been shot and stuffed by Corporal Armstrong, who is an enthusiastic collector. Occasionally I have been able to lend a hand when the number of birds was too great, or other work less pressing. Among the best specimens are the kingfishers, especially the gorgeous Smyrnian species in blue, chocolate, and white. Tristram's Grackle and the *Passer Moabiticus*, we have also obtained, with eagle owls and the famous sunbirds of Jericho. Bulbuls, the hopping thrush, doves, partridges, and many species of wader, desert, and Persian larks,

with a few sea birds obtained in our journey down the coast, may be added. The collection promises to be a good one, and will interest equally the naturalist and the biblical student.

We are now in the midst of that region in which the whole Geology. interest of Syrian geology centres. Having studied carefully the geology of the watershed and west plains, I am now endeavouring to connect these observations with others which shall point out the time geologically of the depression of the Jordan Valley. To write decisively would be premature; but the consistency of the old and new observations is instructive and encouraging.

The following succession of strata is observable throughout Palestine:—

Tertiary.	{	1. Nummulitic and Oolitic limestones of the Lower Eocene period, as at Nablus.
	{	2. Soft chalk with large flints, as in Galilee.
Cretaceous.	{	3. White marl with flint bands, as at Nablus.
	{	4. Hard white basebed with flints and fossils, as at Carmel.
Jurassic.	{	5. Compact limestone, with a few flints and fossils, as at Jerusalem. Dolomitic beds.

An unconformity is distinctly traceable between the two last groups in many sections. The Nubian grit underlies the dolomite, but does not appear in Palestine.

The numerous observations of dip and strike, with the levels and sections which I have collected, will, I feel sure, lead to a very definite theory on the formation of the Dead Sea and Jordan Valley; but it would be hasty and unwise to publish these notes before they are complete. That a great lake or sea of still water existed in the neighbourhood of the Dead Sea, but at a much higher level, I hope to make out clearly. At present at least three distinct levels are traceable:

1. The level of the Ghor, or mud valley, through which the Jordan runs.

2. The level of the plain of Jericho, consisting of soft white semi-consolidated waves, with salt and sulphur, evidently deposited in still water, with the exception of the later formations in the valley beds.

3. The level of the coloured marls of Nebi Musa, which are unconformable with the more ancient white cretaceous marls. The basin between Koruntil and Konaytra, formed by the dip of the older strata, is filled up with these deposits, and corresponds to a similar basin on the east of Jordan. The lake at this period would therefore have stretched to the foot of the main chain.

The Talmudical writers speak of a "long journey," and define it as being as far as from Jerusalem to Modin, or beyond. Medyeh.

Maimonides explains this as meaning fifteen miles. This is just the distance from El Medyeh to Jerusalem, and the Roman mile, if that is intended, only differs slightly from the English.

## NIX.

## EXCURSIONS FROM BLUDAN.

JERUSALEM, *Jan. 7, 1874.*

The exceptionally stormy year which (now that we have recovered from the severe attack of fever) still keeps us within doors at Jerusalem, leaves me time to fulfil the wishes of the Committee in forwarding a short account of some excursions made during our stay at Bludan.

Sûk Wady  
Barada.

The first of these was a visit to Sûk Wady Barada, a site of considerable interest, being, as it is with great reason supposed, that of the capital of Abilene, mentioned by St. Luke (iii. 1) as the tetrarchate of Lysanias, son of Ptolemy and grandson of Mennæus king of Chalcis, about B.C. 60. The tablet, twice repeated beside the Roman road, records its reconstruction by the Emperors Marcus Aurelius and Lucius Verus, at the expense of the inhabitants of Abilene. The name Abila, applicable to the capital itself, is supposed to linger in the Kabr Abîl, or tomb of Abel, a huge sunken birket 30ft. in length on the heights above.

Sûk Wady Barada is one of the most picturesque sites in this part of Syria. Travelling from Damascus along a desolate expanse of flat stony soil known as El Sahrah, we came suddenly to the feet of the precipitous chain of the Antilebanon, and entered a fine gorge overhung with craggy cliffs. Deep down in this the Barada (ancient Arbana) has worn its bed hidden by the thick growth of tall poplars and flowering shrubs, through which the refreshing sound of its brawling water strikes the ear. The steep high banks are formed of a sort of conglomerate, with a soft white matrix, in which the prints of leaves, branches, and twigs brought down and embedded by the river action, are most delicately preserved. The great depth of this formation, evidently marking the gradual deepening of the gorge by the powerful action of the rapid stream, together with the indications of date given by the species of the leaves, would enable a geologist to measure approximately the rate at which the water bores downwards. The modern village, watered also by streams which run from the hillsides, lies low down among the poplars. The extensive use of wood in its construction, its flat mud roofs projecting over verandahs which surround the houses, give an almost Swiss appearance to the hamlet, contrasting forcibly with the bald, comfortless appearance of the villages of Palestine set among the stony mountains, treeless and unwatered.

On the north side of the river, below the precipices, lies the necropolis of the ancient town. Higher up, the stream turns sharply round in the very narrowest part of the gorge, and falling by a succession of small cascades, each with a deep pool beneath, it passes under a modern single arch. Above this point the course is still between

poplar beds, but the gorge opens until the long plain of Zebedany is reached, where at the foot of a craggy ridge the Barada springs up full-grown in a blue pool surrounded with rushes and extending to an unknown depth.

Súk Wady Barada is a well-known site, and the history of its capture by the Saracens in 634 A.D., during the annual fair, is supposed to be the origin of the modern name, "The fair of Wady Barada."

I am not, however, aware that the ruins have ever been systematically studied, although several inscriptions have been obtained from them. We executed a sketch survey of the site, and took plans of over a dozen tombs, examining about twenty. They are of great interest as forming a clue to the date of other tombs of similar construction, and thus giving a basis in the comparison of the great number of specimens we have already collected. The inscriptions which we obtained not already known have been communicated by Mr. Wright to the Fund; they are all in Greek, and without exception tombstones. One found in place consists of four tablets over a sunken tomb; three are inscribed, but much defaced. The name Archelaus as a patronymic occurs in two: a column fallen into the stream beneath is inscribed at the top and near the base, the latter giving *ο λουκιος υιος εθηκεν*. The remainder, numbering six in all, some very well preserved, were lying loose in various places near the town.

The Roman road with its tablets, the aqueduct beneath, part rock-cut, part built with large slabs against the cliffs, the façades with pediments and figures much defaced, are too well known to require description. We noticed a great number of fine stones in the village itself, and the remains apparently of a temple, now transformed into a school; it seemed doubtful, however, how much of the material was *in situ* and not taken from another site. North of the road, and east of the village, a wall with fragments of cornice and pillars indicates the position of another classical building.

Descending the stream still farther, and crossing by a most picturesque bridge, we reach the place of another small temple, the best preserved ruin in the neighbourhood. The eastern and southern walls are easily traceable, and the spot might repay excavation. I took measurements of the pillars and cornices which appear fallen in confusion. They are bold and massive in character and formed of large blocks. There are several mounds in the vicinity which no doubt mark the sites of other buildings, giving the idea that in Roman times the mouth of the gorge was occupied by a large and important town.

Our second expedition was to Baalbek, where we remained a day, returning on the third. The object of this was to enable me to send in a report on the present precarious condition of the ruins, which has already appeared in print. The discovery which we made, but which requires further examination, of a pillar-shaft built into the foundations exactly beneath the famous trilithon, cannot fail to be considered of the very greatest importance.

Circumstances considerably delayed our projected visit to Hermon, and it was not till after a shower or two had fallen that the atmosphere became sufficiently clear to allow of our attempting an expedition intended for the observation of very long distances. At length, however, we started; Mr. Green, Her Britannic Majesty's representative at Damascus, came with us, and Mr. Wright, accompanied by Corporal Armstrong, was to join us at Rukhleh. The first day we slept at Rashayah, an important town three hours north of the summit; the second we passed on the top itself; the third at Kalafat el Jindel; and on the 11th September we returned by the eastern slopes and through the gorge of the Barada to Bludan, a march of nine hours for the horses and fourteen for the mules, including the stoppages.

We passed, in the first instance, by the fine ruin of Dayr el Ash'ayir, which has been visited and described by Captain Warren. The walls are standing to the height of the capitals, which are Ionic, with a Greek fret beneath the volutes. There are vaults in the stylobate which are at present inhabited. Anxious, however, to reach Rukhleh at the appointed time, we did not even dismount at this place.

The road ascends a steep narrow wady winding between huge boulders of rock. We here missed our proper path and entirely lost Corporal Brophy, who subsequently met the natives sent to look for him. Some charcoal-burners brought us back to a little plain from which a steep track leads to one of the ridges. Here we found another great valley running eastwards, with the village on its southern slopes, whilst beyond towered the steep sides of Hermon with the knife-like ridge which culminates in the principal summit.

Rukhleh also has been visited by Captain Warren, and I only add such notes as are supplemental to his. There are four principal buildings. The upper eastern temple, the upper western temple, the lower northern temple, and a building called El Burg north of the last upon a high point of rock. Of these his notes are principally confined to the second. (See *Quarterly*, January, 1870.)

There are several Greek inscriptions lying in the indistinguishable ruins of the higher eastern temple. Of these we copied two, one on a pillar, of which a copy has already appeared (*Quarterly*, March, 1870). The transcription, however, resulting from the joint efforts of Mr. Green, Mr. Wright, and myself, is more perfect, although it is extremely difficult to see the letters under the ordinary light. A sort of cartouche surrounds the central portion of the inscription, which seems nevertheless to read straight across. It is most interesting as referring to a certain Epiarch of Abila, whose name might perhaps be made out by a copy taken at night with a lamp; it refers to the guardians of the temple, and a certain Bernice, as having done something (probably in restoration or adornment of the temple) at their own expense; it also contains a date.

The second inscription, on a large stone, was more rapidly copied, and would repay the trouble of a squeeze. It commences, *θεας*

λε(ν)κοθεωω, and the words *αυτοις αργυρια αναλωσαντ'... υπερ της θυρας* are distinctly legible in one part. There are in all eight lines, the longest containing twenty-two letters: the *ιεροταμιαι*, or guardians of the temple, are again mentioned in it. I am not aware that it has been previously made public.

The second building is farther west, about the same height, but hidden between houses which are on the level of the vaults in the stylobate. The roof of a house covers up the eastern end, but there is no doubt that this was a temple also. Its extreme width is 24ft. 3in., and the height of the stylobate, a fine piece of work, the profile of which I have carefully measured, is 5ft. 7in. It consists of very large blocks of stone. The building is divided by a cross wall at a distance of 22ft. from its east end, and the door of this was surmounted by a massive lintel of bold mouldings, which I also measured. The most curious point in the structure is the existence of an apse at the *western* end having a good hemispherical dome of small well-cut masonry. There is no special sign of this being a late addition, as although the ashlar is smaller (which is commonly the case in Roman buildings in Palestine), the stone seems to be of the same character.

This building is locally called Kala'at el Melek, or the King's Castle. An inscription on a tablet upon a small pillar is here built vertically into a wall, so that only half is visible. It was copied by Captain Warren, but we add a few letters to his. It is well preserved, and should be taken out, when the whole would be legible.

The third building is the famous temple with the head of Baal in its wall. This has been described many times, and especially by Captain Warren. Its dimensions are 56ft. from north to south, and 82ft. to the line of the apse, interior measurements. The bearing we made to be 120 degrees, but Captain Warren 127 degrees. It has been said that the apse at the eastern end has been added at a later period, but I should feel inclined to go even further, and consider that hardly a stone in the building is *in situ*, and that from the present dimensions we cannot judge without excavation of those of the temple. The courses of the south wall, of which I took a careful sketch, are extremely irregular; a portion of a cornice is built in at the east end, then comes the slab 5ft. by 6ft., the height of two courses, on which is the head of Baal, of fine classic outline, but much defaced. It is surrounded with a border of honeysuckle pattern. Next to this two courses—the upper 3ft. 2in. in height, the lower 1ft. 10in., the upper of two blocks 5ft. 1in. and 6ft. 1in., the lower of six stones in the same length. A stone 4ft. long follows in the upper course, and then a succession of much smaller masonry in five courses, reaching to the fine sculpture of an eagle, which resembles the Roman eagle on the soffit of the great lintel at Baalbek.

In the western wall the courses vary also considerably; the jambs of the door seem very probably to have been pieces of a cornice. In the north-west corner a bit of cornice is built in horizontally, at the height

of the lintel of the door. The ground here, either from the natural slope or from the accumulation of rubbish, reaches up to this fragment.

The northern wall is almost entirely of small stones. The apse courses differ considerably in height, and on the outside various niches are built into the wall in a most irregular fashion. Thus no wall of the building can be pointed out as probably remaining intact from the earlier times. The church was divided into a nave and two aisles, the latter being 16ft. wide. There were two rows of five columns each, the two attached to the corners of the apse being probably a trifle larger; the average diameter is 3ft. and the height 22ft. 6in., including base and capital. The latter are of Ionic order. Of all these details I have carefully measured sketches. There appear also to have been two rows of pilasters attached to the outer walls, also of Ionic character, and having a fret similar to that at Dayr el Ash'ayer below the volute. Above these, both inside and out, was a cornice, and a plain architrave connected the columns. Of the roof, however, there are no indications. The door in the west wall was not central, but communicated with the southern aisle. There was also a smaller door on the north, but whether any on the south appears to be extremely problematical.

Between this ruin and the former there are many fragments of cornices, pillars, and niches, a large birket now dry, and a deep funnel-shaped well with a flight of steps. Just opposite the modern Druse village are ruins of houses which we did not examine. There are two illegible inscriptions in Greek, one on the east wall, the other towards the south-west corner, inside the church. South of the village is a regular cemetery of rock-sunk tombs, and a cave with two compartments containing loculi parallel to the sides.

There only remains one building to describe in Rukhleh, and this is called El Burj—the tower. It is on a high knoll north of the church, and presents a platform of rock about 10ft. high and 12 by 15 paces area. A building on a low stylobate, with large well-cut stones, showing no traces of mortar or of drafting, stood on the platform. On the east is a lower building, six paces broad, which seems to have contained round columns supporting the roof.

There can be no doubt that this village was once an important town. The occurrence of the name of Abila in two of its inscriptions is curious. It would well repay further investigation and excavation when visited by our American colleagues.

Leaving Rukhleh late in the afternoon, we pursued a path more rocky, it seemed to me, than any I had as yet seen in Syria; after passing a narrow ridge we began descending a long, narrow valley, at the end of which the Druse village of Kefr Kúk stood above broad slopes of vineyards, brilliant apple-green in colour, and lighted by the setting sun. Below, on our right, was the curious plain which in winter becomes a lake. Some few days after heavy rain a roaring noise is heard beneath the ground, and a stream issues from a cavern,

quickly submerging the whole extent of flat ground lying between steep mountain ridges.

After sunset we reached Ailha, where the remains of a temple are visible, but as darkness came on we did not stop, but hurried on to the great town of Rashaya, placed on two low hills facing one another, and filling the low ground between them. Here the kaimakam, on a prancing steed, hurried out to welcome the English consul's party. The infantry of the garrison, four soldiers and a sergeant, advanced in Indian file, turned into line, and presented arms. The irregular cavalry rode madly about over one another, and finally one of their number fell over his horse's head. At last all our cavacade was jammed in a narrow street, where the horses of the English party began to kick out, and the kaimakam, having thus fulfilled his duty, speedily retired.

Next morning a great deputation waited on Mr. Green. The kaimakam, the Druse shaykh, the chief Greek priest, and the Protestant schoolmaster, came amicably together, surrounded by their admirers and followers. This audience having been brought to a close and return visits paid, we commenced the ascent of the mountain, a long, steep slope of small loose shingle most fatiguing to the horses.

Our camp was pitched in a sheltered hollow, but we experienced a difficulty rarely felt, of the want of water. Not a vestige of snow was to be found on any part of the mountain, and we were obliged to send the animals down again to the 'Ain Jerniyeh, a spring one and a-half hours from the summit on the western slope. We were engaged till after sunset in taking observations, and after dark we fired the surrounding patches of a prickly shrub, which burns for a very considerable time, thus announcing our safe arrival to the ladies at Bludan, whose return watchfire we, however, unfortunately missed seeing. The night was extremely cold, in spite of our wraps. The non-commissioned officers remained up all night, taking observations for latitude. In the morning we rose before sunrise, and the day being fairly clear we obtained some good observations, especially a line to Carmel, which has thus been observed both ways. Safet, Tiberias, and many of the ruins in the northern district of our Survey, kindly picked out for us by Mr. Wright, were well seen. We took a few shots into Lieut. Steever's country, and angles to all the villages visible on the slopes of the mountain. There is a district on the south and south-east of the summit which has, I believe, never been explored, and which cannot fail to contain many ruins of interest.

Ascent of  
Hermon.

My next care was to obtain a careful survey of the summit of Hermon, and a plan of the temple, intended to supplement that of Captain Warren. The top of the mountain may be described as consisting of three peaks, of which two are approximately north and south, and of almost equal height, being joined by a flat plateau depressed in the middle. The third peak to the west is considerably lower, and divided by a valley-head from the former.

The name of this third peak is El Mutabkhiyât, which means, I am informed, the "place of cooking." The plateau is called El Dar, the northern peak Kâwasr el Dar. The southern is that on which the temple is built, for which our informant (an old goatherd, who had lived many years on the mountain) gave the name of Kasr el Shabîb. The name Kasr el Antar is incorrect, referring to another building. He denied that the name Kasr Nimrûd, given by Captain Burton, was correct; and I am inclined to believe it is applicable rather to the building at Kalaat el Jindel, which I shall describe later. The building itself is a small temple on the southern side of a block of rock which is surrounded by an oval of well-dressed stones. On the top of the block is a rectangular sunken trench or birket, and close to it a round shaft, not deep, unless it is filled up, and supposed, as Mr. Wright informed me, to have been the flue of an altar. The surrounding wall seems to me never to have been more than a dwarf wall. A great quantity of ashes is still observable on the west, without its boundary. There does not appear to me ever to have been any outer enclosure. There is, however, south of the temple, a retaining wall of rough stones, evidently intended to bank up the earth at the head of a small valley which starts on this side. The stones of the temple wall are drafted, and one measured 4ft. 4in. by 2ft. by 2ft. 8in., with a face smooth-dressed and a draft  $\frac{1}{2}$ in. deep, 6in. wide one side of the stone,  $3\frac{1}{2}$ in. on the other. A fragment of a very simple cornice we also measured. A Greek inscription is said to be still lying on the spot, but we searched for it in vain.

The cave upon the plateau I also entered and measured; it is rough in shape, 15ft. 6in. by 24ft. 6in. in dimensions; the roof is partly supported by a rough rock-cut pillar. The height varies from 7ft. to 8ft. It faces very nearly east. A rock-cut stair of three steps leads down to it, and a small lintel was thrown across this outer entrance. Above the cave the rock is cut down, leaving a rectangular flat space 26ft. by 33ft. I have no doubt that there was a building over the cave at some period.

These notes are all that we are able to give in addition to the full account of Captain Warren, and supplementing the careful survey of the summit and plan of the Kasr el Shabîb which we executed.

The chief interest which Hermon possesses for the Biblical student is as the traditional site of the Transfiguration of Christ. The narrative relates (Mark ix.) that being then at Cæsarea Philippi our Lord took his three disciples "into a high mountain apart." That reference is thus made to some part of Hermon there can be no doubt. It is a curious observation that on the summit of Hermon there is often a sudden accumulation of cloud, as quickly again dispersed, often visible when the remainder of the atmosphere is perfectly clear. I have myself noticed this on more than one occasion, and we had some fear that during our stay on the summit our view would be thus suddenly cut

off. We cannot fail to be reminded in this phenomenon of "the cloud that overshadowed" the apostles.

A short day was necessitated both by the time taken in observations and by the fatigued condition of the baggage animals. We therefore fixed upon Kalaat el Jindel, a Druse village on the east of the summit, as our camping-ground.

This point was not visited by Captain Warren. The name is applied to the village itself, and the castle is said to be the resting-place of one of the sons of Nimrod, if not of the hunter himself; for which reason no dew ever falls in Kalaat el Jindel. The two are separated by Vandevelde, who shows the Kalaat on the wrong side of the wady.

The building is a curious one, and its origin may be very ancient, though I am inclined to look upon it as mediæval. It is a rectangular fort commanding a narrow gorge, and almost entirely cut in the rock, facing 190 degrees in the direction of its length. It is divided into two compartments, the western of which contains a Mohammedan kibleh niche, and another recess with jambs and lintels moulded, on the west wall; whilst on the north is a loophole of mediæval character, and a broad rock-cut window exists on the south. The eastern chamber had structural walls on all sides but the south, where a step 3ft. or 4ft. high leads to an open window. Through this we gain a passage on the same level, running parallel to the two chambers, and looking down a steep scarp into the valley below. Both the chambers have been cemented at some time or other; the masonry is of large proportions. A cave, which is not easily accessible through a small window in the east face, exists below the building, in the scarp. Close to it on the west is a tomb resembling somewhat those at Sûk Wady Barada. If this were originally a temple, it is the only known instance on Hermon of a temple facing west.

From Kalaat el Jindel I accompanied Mr. Wright on a visit to Burkush, which was the last site we investigated. It was situate one and a-half hours' ride north of our camp, to which we returned. The following day we were too much occupied to allow of our stopping, nor did we pass any very remarkable ruins.

The ruins at Burkush are the finest which we examined, but they have been very fully described by Captain Warren. I, however, took the plan as carefully as time allowed.

On approaching the spot, one sees a strong, well-built platform wall from which a row of cantilevers for supporting arches project. On the platform are foundations of a large Byzantine building, and small hovels of the modern Druse village are built against the eastern wall. At a distance north of this of 175 feet are the remains of another building, with a tumbled mass of masonry belonging to the upper courses.

The plan of the substructures I take to have included two great vaults running the entire length and breadth (130 feet and 160 feet) of the building, with a roofing of flat slabs upon arches at intervals of 3 feet

6 inches. The southern of these vaults is now broken down; the western I could see still exists, though it is not attainable, and much choked with rubbish. On the north the ground attains the height of the platform, and is in places cut away. On the east there are smaller vaults and chambers. There is also another pair of vaults with simple barrel roofs on the west; of all these I have obtained a perfect plan, with their relative positions. From the great south vault, which is 19 feet broad, we enter into some small chambers and a passage placed in the south-west angle of the platform. There are two very small cells, one of which I should take for an oratory, having a niche for holy water or something of similar character in the northern wall. The other is a chamber for washing, or latrine. Another flight of steps here leads to further ranges of vaults beneath, but having no candle we could not examine them in the time at our disposal.

Over the doors of several of these chambers and on the interior walls the following signs are cut severally.

+ 10 Δ ε L M

The second occurs frequently, the rest I was inclined to look on as numbers to the various cells. Several crosses are cut carefully on stones of the outer wall, but probably late.

A very simple cornice runs along the south wall; its moulding is the *Cyma recta*.

The building above must have consisted of three walks, the central one 36 feet broad. The rich and fantastic moulding of the capitals, many of which I measured and copied, show it to have been a very magnificent building. The magnetic bearing in the direction of its breadth was 124 deg. Of this also I found time for a plan. The masonry is very large, twelve courses giving 40 feet height at the south-east corner of the platform.

I was at the time inclined to consider the building as of one date, but Captain Warren's discovery of an Ionic capital in the ruins militates against this, and there is no doubt that the apse of the second structure is built on. Of this structure I made a careful plan, and sketches of the two small attached columns on stools flanking the doorway. The masonry is very large and well-cut except in the apse, and no drafting appears in any of the stones.

There are a great number of ruins round this central basilica, showing the remains of a large town; and a building halfway down the hill, whose foundations only remain, seems to have been a church. At the foot of the hill is a huge sarcophagus, with a bust in basso-relievo, and on a stone close by is an illegible Greek inscription.

There are considerable traces of ancient cultivation on Hermon. In the deserted plain on the east, in the rocky fastnesses at Rukhleh and its neighbourhood, old stone terraces and vineyard watch-towers are scattered. At the present day the long slopes of vineyard, especially remarkable at Kefr Kúk, Rashayah, and Burkush, with the scanty patches of barley, are all that remain.

In conclusion to this report I will note that the fine temples at 'Ain "Ain Fiji." Fiji, near Sūk Wady Barada, have just escaped a great danger. They owe their preservation to Mr. Wright, who passed them when the Wali of Syria was engaged in their destruction. The arch from which the stream flows beneath the temple was stopped up, and the ingenuity of Syrians could suggest no other method of clearing it out than blowing up the building itself. The expostulations addressed by Mr. Wright to the Wali stopped these proceedings for a time, and I at once sent Corporal Armstrong to make a plan of the ruins. The workmen were by that time withdrawn, and the buildings have, I hope, escaped destruction.

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## XX.

JERUSALEM, *Jan. 30, 1874.*

### GEZER, MODIN, GIBEAH, AND AI.

I am at length able to report that a full sheet of the map, probably Survey. the most difficult and interesting of all, has been completely filled in. The Jerusalem sheet contains over 1,400 names, and the number of ruins planned and drawn is very large. We worked in the Ghor till the commencement of the heavy rains, and have—round Jerusalem and from a flying camp at Dayr Diwán—filled in on the few fine days such portions as could not be reached from other stations. During excursions which I have made when weather allowed, I have visited every important site within twenty miles of the city, and have increased the number of special surveys to sixty-three, including seven churches not to be found in M. Du Vogüé's "Churches of Palestine," and among the later additions the survey of Tell Gezer, the plan of the tombs of the Maccabees, the great church at Ramleh, &c.

Of late, however, the whole country has become unfit for outdoor work, and we are engaged in getting our materials into order, a work which will occupy us all our time until the Jordan valley shall have become fit for camping, when I hope to return to it for survey.

The two principal excursions have been that to Ramleh, undertaken by myself and Mr. Drake, and that to Dayr Diwán, where Sergeant Black accompanied me. We camped for two days at this place, and filled in about twenty-five square miles during very bad weather and a violent hailstorm. I propose to give a short account of each of these journeys.

Leaving Jerusalem on 17th, about 8 a.m., we proceeded by Kolonia, where I noticed the building with drafted stones. There are many vaults and foundations round it, and I think it probably is the site of one of the Crusading conventual edifices, in which the masonry of an older date is constantly used up again.

At Khirbet Ikbala, near Abu Ghosh, we examined a very prominent ruin. It proved to be a convent, probably, from its style, of the same date as the neighbouring church. Numerous masons' marks are found

on the walls, but the chapel has been ruined, and was not traceable. A strong stream, dropping over the rock ledges in little cataracts, runs by it. Even in summer there is a good water-supply, and a grove of sindian trees may be the remains of the old convent garden.

At Latrún are the confused and scattered ruins of another Christian site. The rain, however, obliged us to keep straight on for Ramleh, leaving this and Tell Gezer till later.

Starting on the following morning for the latter site, we crossed the swampy plain, and reached Abu Shusheh at nine in the morning. There is no doubt that in itself, apart from the strong argument in its favour, the site is most striking and remarkable.

Tell Gezer.

Situate on a swell of the low hills, its tombhouse is visible in every direction from a distance, and forms a conspicuous object from the Jerusalem road. We have on the Tell a fine site for a city. Though not remarkable in a military point of view, it commands the pass to a certain extent. The fine spring of 'Ain Yardi, on the east, would supply an unlimited amount of water, and the rich cornland in the vicinity stretches down to the sand dunes on the coast. The view is very fine. The plain of Sharon lies spread out like a map, the fantastic minarets of Ramleh and the white columns at Lydda set in its dark olive groves; the emerald plain lapping the feet of the dark Judean range, which were then covered with heavy wreaths of cloud; beyond all, the blue sea, shining as it always does under the winter sun. The Tell is long and irregular in shape, and on its sides are terraces, which prove supported by long walls of great unhewn blocks. Near the eastern end is a square raised platform of earth, about 200 feet side, also containing similar blocks. This is no doubt the foot of Gezer; I was not, however, able to find the foundations mentioned by M. Ganneau, although there are many ancient quarries, while rough tombs and oil-presses exist below the Tell on the north and north-west. The ground is everywhere strewn with small fragments of pottery and of glass. The curious idol found by M. Bergheim, as well as a number of worked flints, have been already mentioned. The house he is building, and the kubbet, with its graveyard, are the most conspicuous objects on the spot.

Ramleh.

The afternoon we devoted to the two principal buildings in Ramleh, the church and the white mosque.

The church is supposed to be of the 12th century. In the 10th two churches existed, which were destroyed and rebuilt. The only other notice I have been able to find is that by Sir John Maundeville, who in 1322 speaks of "a fair Church of our Lady," "beside Ramla," "where our Lord appeared to our lady in the likeness that betokeneth the Trinity." M. du Vogüé in 1860 could not enter it, but the fanaticism of the Moslems is less marked nowadays, and our survey cost only 5s. as "backshesh."

The building, which I have been, as I believe, the first to plan, consists of a nave and two aisles, with the principal and side apses, and with seven bays of clustered columns. The nave is built with a clerestory,

the greatest height being about 40ft., the length 150ft., and the breadth 75ft. It is the finest and best preserved church I have seen in Palestine. The spaces between the piers are irregular, varying from 12ft. to 14ft. This is not uncommon in Crusading work, and I believe the inaccuracy of many plans arises from only taking a single measurement, supposing the building to be symmetrical. I am, however, careful to take every measurement, as such variations are curious and interesting. The thick coat of plaster which the Moslems have added, as the ordinary embellishment of a mosque interior, has covered the delicate tracery of many capitals, and makes the finding of masons' marks impossible.

The Jam'ia el Abiad, or White Mosque, at the opposite extremity of the town, is as fine a specimen of Saracenic architecture. It has been known under the erroneous titles of "Church of the Templars," and "Cistern of St. Helena;" and its tower, as that of the "Forty Martyrs" (an important point in our triangulation). Robinson has, however, pointed out that there is no reason for supposing it other than a Moslem construction, and the date, 1318, on the great tower, is not improbably of its building. Christian masons' marks do, indeed, appear on some of the steps of its staircase and on a window; but these stones no doubt belonged to the 10th century churches, and the style of the building seems Saracenic in its details. The massive walls, strong core, and well-finished pilasters and windows, make it one of the most beautiful and best built of the edifices of the country. Shaken often by earthquake, it still stands almost uninjured, and affords a striking view from Kalkilia on the north, down almost to the limits of Palestine on the south. The name Arb'ain Maghazi (Forty Champions), is applied to one of the three extensive vaulted colonnades beneath the mosque court, to which a pilgrimage is made once a year, and which is filled with the little piles of stones used to mark all such sites throughout Palestine, notably at El Mosharif and other points from which Jerusalem is first visible.

The double colonnade of the mosque itself, fast falling into confused ruins, is on the plan of the Damascus and other ancient mosques. I took a plan of the whole enclosure, as of architectural interest from the date attached to it.

Starting on the following day to return to Jerusalem, we took the Lydda. more northern route through Lydda, Beth-horon, and Nebi Samwil. At Lydda I re-examined the famous Cathedral of St. George, an important building mentioned by nearly every mediæval writer as far back as St. Willibald. The present ruins are about the 12th century. There is no question in this case as to the name of the patron, which since the 8th century to the present day has been that of St. George, whose body is supposed to lie in the crypt, under the high altar.

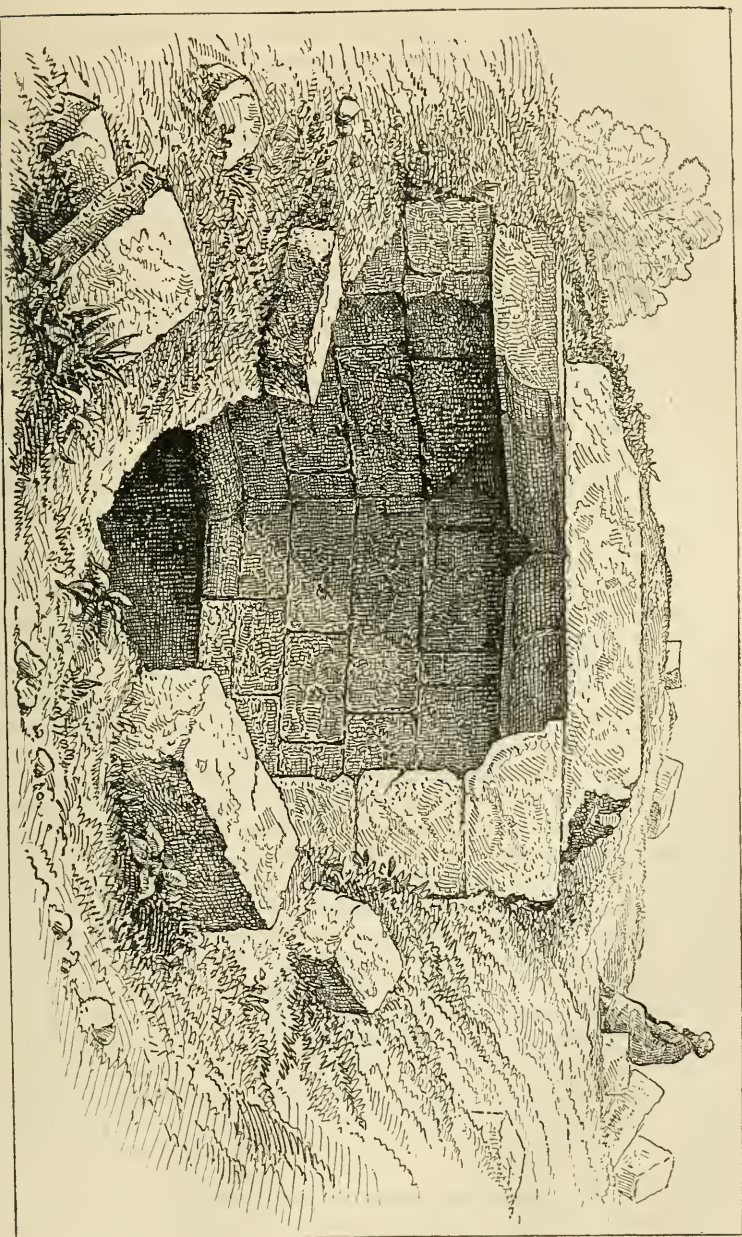
This church is an instance of the rapid demolition of many such edifices in Palestine. When visited by Du Vogüé, the south apse was quite perfect; but now that it has been restored by the Greeks, and a modern church made out of the first two bays of the nave and north aisle, the southern one has been quite destroyed, and I did not remark any traces of its apse.

M. du Vogüé does not, however, appear to have entered the mosque, the courtyard of which is bounded on the east by the west wall of the Greek church. In this I found a pier and pillar belonging to the south aisle, not noticed in his plan. The number is thus brought up to five or six bays, which would make a well-proportioned church, the total length either 130ft. or 150ft., and the breadth about 80ft. The beautiful moulding of the capital and other details has been well reproduced by the French artist. Another visit may, perhaps, enable me to settle the question of the total length, in a perfectly satisfactory manner. In the meantime I may note that my measurements agree perfectly with both those of Robinson and of M. du Vogüé.

El Medyeh.

Leaving Lydda we ascended gradually to El Medyeh, passing Kh. Zakariyeh and Kh. Kelkh, Christian sites of some little interest, the details of which, including the curious Hermit's Cave of El Habis, I measured. The plan of the tombs of the Maccabees—the structural monument, north of Dr. Sandreczki's rock-cut sepulchres, known as the Kabûr el Yahûd (probably a Frank name), I was now able to complete. It is extremely interesting, and a point about it which I had not previously noticed is, the apparent existence of a little court or vestibule to each tomb. The general appearance presented is that of an oblong building, with cron walls. These are not indeed always visible, and without efficient excavation it cannot be said certainly that more than two intermediate and two end walls exist; still the appearance of the ground, sinking in seven wells of rubbish, plainly intimates that formerly there were originally five intermediate. It was in the thickness of these walls that the tombs were built, being about 3ft. 5in. broad, and the wall having a thickness of over 4ft. 6in. The tomb was open on the eastern side, and the grave itself sunk in the floor of the chamber and covered by a slab. Thus the present sunken pits, about 6ft. 9in. square, appear to form vestibules between the tombs. From the discovery of a capital of most primitive appearance, roughly approaching the Ionic order, each would seem to have been ornamented by a column, probably supporting a level roof. There would probably be steps leading down into these, thus explaining how the intermediate tombs, to which there can have been no other means of communication, were reached. It may be to these pillars that Josephus (*Ant.* xiii. 7. 6) and 1 Maccabees (xiii. 27) refer; that they were monolithic is highly probable, though they hardly deserve to be called "great pillars." The "cunning device" round about which they were set, and spoken of as *in* the pyramids, may be supposed to be the vestibules in question; and it is noticeable that Josephus does not speak of the pillars as in the cloisters.

By the latter expression I understand the enclosure, equal in extent with the monument on its western side, surrounded by a fine wall, with stones 8ft. long in parts, and measuring about 80ft. each way. It is remarkable that the outside walls are 5 cubits thick (a cubit of 16in. as generally accepted), the interior 3½ cubits, the vestibules 5 cubits square;



EL NEDYEH (TOMB OF THE NACCABEES?)

one drawing by MR. C. F. TYRWHITT DRAKE

and the length of the graves also 5 cubits, an unusual length, and greater than that prescribed by Talmudical rules.

The last question with regard to this monument is its height, which is described in both accounts as being very great. The question of the height of the pyramids is included in this. It has been said that the sunk centres of several stones show the resting-places of these structures, but this is doubtful for several reasons. First, that only one of these stones is *in situ*. Secondly, that the sunk portions do not occur in the middle of this slab which covers the east tomb. Third, that in the case of another stone not *in situ*, the sunken portion is not central. It is still not impossible that the theory is true, in which case about 3ft. would be the side of the base of the pyramid, which would not allow a greater height than 9ft. or 10ft. The height of the rest of the building was 8ft., and thus the maximum was under 20 or about 15 cubits.

The graves beneath are rock-cut, and may have preceded the monument, as is rendered probable by the two accounts. Two small towers 5 cubits square flanked the entrance to the vestibule of the eastern tomb. Thus we have a monument capable of reconstruction in cubits within a foot of my measurement of the total length.

Josephus speaks of the stone used as "polished," but it seems to me not impossible to have been *whitewashed* or plastered, in which case from its position it could not fail to be conspicuous from the whole extent of the sea-shore, visible from about the latitude of Mukhalid far down towards Gaza.

From El Medyeh we returned to Jerusalem, passing beneath Nebi Samwil, which I had visited on a previous occasion, and a short account of which may therefore find a proper place here.

Nebi Samwil was known to the Crusaders under a variety of names, to which they added one of their own, calling it Mount Joy. The strong rock-cut passage to the east of the church, with vaults of good masonry, a Crusading fireplace, and other details of similar character, may very probably belong to this period. No plan of the fine church has been as yet, I believe, published, although of considerable interest. It was cruciform in plan, with a sort of side building added on the north of the nave, although it is doubtful whether any corresponding structure was built on the south. It is worthy of remark that the present cenotaph placed in the ends of a modern building occupies the exact centre of the old nave, and is thus probably of Crusading date, although the tomb of Samuel is never mentioned by early writers. The south transept is perfect, with a Mohanmedan niche in its wall; the north has been filled up with irregular cells of Moslem work. The choir probably terminated in an apse, but this is quite destroyed, and a modern wall cuts short the edifice.

My second expedition was commenced on the 22nd inst. Our way lay first through Hezmeh, where I measured carefully the five curious tombs called Kabûr benî Isr'aim, and planned their relative positions

and distances, taking carefully the bearing of each. Their construction is interesting, and points to the antiquity of drystone monuments in the country. In the disposition of a series of chambers included in one rectangular wall they resemble the El Medyeh tombs, but are not separated by intermediate vestibules. There seems no rule as to their orientations, and lengths and widths seem to have no connection.

We next pushed on to Jeb'a, a point of extreme interest in connection Gibeah. with the history of Saul and Jonathan. It is a small village, and conspicuously situate over the rocky slopes of one of the branches of Wady Suwaynit. The road to Mukhmas (Michmash) descends the hill in an easterly direction, and a path equally rugged and precipitous leads up to the latter place, situate at a considerably lower elevation. It is not, however, at the village itself that we should look for the site of that famous camp of the Philistines which was attacked by Jonathan and his squire, prototypes of later chivalry. Josephus describes the site of that encampment as being "on a precipice which had three tops that ended in a small sharp but long extremity, whilst there was a rock that surrounded them." Such a site exists on the east of Michmash, a high hill bounded by the precipices of Wady Suwaynit on the south, rising in three flat but narrow mounds, and communicating with the hill of Mukhmas, which is much lower, by a long and narrow ridge, the southern slope of which is immensely steep.

Whilst thus presenting an almost impregnable front towards Jeb'a, the communication in rear is extremely easy; the valley here is shallow, with sloping hills and a fine road, affording easy access to Mukhmas and the northern villages. The hill in question forms, therefore, the foot of Michmash.

We have now to consider the position of Saul's camp, whence Jonathan started. Both Geb'a and Michmash had been taken by the Philistines, and Jonathan had only lately succeeded in forcing from them former possessions. "The fortress of the Philistines" in Geb'a is generally identified with the present Jeb'a, from which, therefore, they had fled across the deep narrow valley. Saul then came down and remained "in the uttermost part of Gibeah under a tree which is in Mizron," that is to say "among the precipices." From thence the contest and the flight of the enemy were visible distinctly, and the sounds so loud that the greatest hurry in arming was thought necessary. Coupling these facts with the expression of Jonathan's crossing "to the other side," as if already on the bank of the great valley, there can be little doubt that the place in question was very near to Jeb'a, probably in those "fields of Geba which must have lain east of the village on the broad corn plateau overhanging Wady Suwaynit." That the site should be found at Tell el Ful, from which Michmash *is not visible*, is of course impossible, nor do other arguments in favour of the latter site appear to me of any great weight. Without entering into the question of the probable identity of Gibeah of Saul with Gibeah of Benjamin, I would simply add that Geba often is found in the Hebrew where Gibeah

occurs in the English, and that on the whole it seems most rational to suppose that the name refers to a district of which Geba was the capital. Josephus mentions the village of Gabaath Saulé, near the Valley of Thorns (the name of which is still preserved in that of Wady Suwaynit) at 30 stadia from Jerusalem. This does not indeed agree with Jeb'a, which is 40, but Tell el Ful, situate about 22 from the capital, is also inconsistent with the historian's measure.

Intermediate between these two camps were the "teeth of the cliff" or "sharp rocks," Seneh and Bozer. So steep was the slope that it "was considered impossible not only to ascend to the camp on that quarter, but even to come near it."

How it should have been possible for Dr. Robinson to find two hills in the valley to which such a description should be applicable, is inexplicable to me, for it is steep and narrow each side, formed of sharp ledges and precipitous cliffs; the passage of which still seems an almost impossible feat, and indeed would have been so, had not the outposts, who might have destroyed the climbers with a single rocky fragment, been, as Josephus describes, withdrawn.

The name Bozer, if meaning shining, would well apply to these smooth and polished rocks; and Seneh Mr. Drake identifies with Suwaynit,\* and Josephus's Valley of Thorns.

Here, then, the heroic prince, climbing with difficulty down, and yet more painfully up the opposite side, fell upon the strong post of the Philistines, who in their panic smote one another down, till the "spoiler quaked," and the watchmen saw "the multitude melted away."

The passage of Wady Suwaynit by the road to Mukhmas, though at a point where no cliffs occur, still occupied nearly half an-hour. At Mukhmas we found traces of an ancient town, large stones, a vaulted cistern, and several rough rock tombs.

Ai.

Near to Dayr Diwán is the extremely interesting site of El Tell, which has been identified by Major Wilson with Ai. My first inquiries, put in every variety of form to various inhabitants on and around the spot, were directed to determining whether the name was simply El Tell, or whether some descriptive adjunct, such as Tell el Hajar, was added. The replies of more than a dozen separate witnesses fully corroborated Major Wilson's former conclusion that the name is El Tell, "the heap," which is used in that passage of the Bible (and in only three others) where Joshua is said to have made Ai "a heap for ever."

The present condition of the site is interesting; conspicuous from a distance, the long mound dipping in the same direction with the strata towards the east, stands out in contrast of grey stone from the rich brown soil of the fields. A few ancient olive trees stand on its summit

\* The modern Wady Suwaynit corresponds fully with the Hebrew סנה, a thorn bush: Josephus calls the place full of thorns.--C. F. T. D.

surrounded by huge mounds of broken stone and shingle ten feet high. On the east a steep slope of fifteen or twenty feet is covered with the same *débris* in that part where the fort of the town would seem to exist. The town must literally have been pounded small, and the fury of its destruction is still evidenced by its completeness. The interest which will, to my mind, attach to other sites, where the similar appearance of broken masonry is observable, will be very great as *possible* marks of Jewish invasion; these, though not numerous, are very remarkable, and they have been noted in each case on the Survey.

The north side of the town is protected by the deep valley (Wady el, 'Asas) which runs straight down to the Jordan valley. On the west however, there is a curious conformation. A steep knoll of rocky masses, called Burjmus, rises to a narrow summit, and is divided from El Tell by the head of a valley down which the ancient road from Bethel passes. The result is that on this side the view is entirely cut off. Another feature noticeable is that the valleys here run nearly due south for many miles, to meet Wady Suwaynit. The deduction from these facts is evident. The party for the ambush following the ancient causeway from Bethel to Jordan (which we have recovered throughout its entire length) as far as Michmash, would then easily ascend the great wady west of Ai, and arrive within about a quarter of a mile of the city, without having ever come in sight of it. Here, hidden by the knoll of Burjmus and the high ground near it, a force of almost any magnitude might lie in wait unsuspected. The main body in the meanwhile, without diverging from the road, would ascend up the gently sloping valley and appear before the town on the open battle-field which stretches away to its east and south. From the knoll the figure of Joshua would be plainly visible to either party, with his spear stretched against the sky. It is interesting to remark that the name Wady el Medinch, a name we have never met before, "valley of the city," is applied to this great valley, forming the natural approach to Ai. There are no other ruins of sufficient magnitude to which such a name could be applied, and the natural conclusion is that El Tell was the city so commemorated. In the wady, about half a mile from the town, are ancient rock-cut tombs, seemingly as old as any I have yet seen, and extensive quarries. Farther up, three great rock-cut reservoirs, 36, 15, and 46 paces long respectively, and, I am informed, of great depth (they were then full of water), are grouped together. They are known as El Jahrán. Numerous other cisterns exist near the ruins, and mill-stones of unusual size.

The view from this point eastwards was extremely striking. The rocky desert of the Judæan hills, grey furrowed ledges of hard and water-roughened limestone, with red patches of the rich but stone-cumbered soil, stretched away to the white chalky peaks of the low hills near Jericho. The plain beyond, green with grass, stretched to the brown feet of the trans-Jordanic chain. Heavy cloud wreaths hung over these, but their slopes gleamed yellow and pink in that wonderful

beauty with which they are ever clothed by the sinking sun. The calm water of the salt sea, with a light mist brooding above, added to the charm of the view. Well might Lot, who from nearly this very spot looked down on this green valley, contrast it favourably with the steep passes and stony hills which he relinquished to Abraham. Half the breadth of sea and plain was visible; the western half is hidden by the hills. The cities of the plain, placed, as we conclude, at a distance from the "mountain" to which Lot could not fly, and in the vale of Siddim, "which is the salt sea" (Gen. xiv. 3), were therefore in all probability visible in gleaming contrast with their green palm groves, now, alas! extinct, but still standing in the times of Arculphus (A.D. 700), thus resembling Damascus in its oasis of trees.

Having worked through a severe hailstorm on the following day, I returned to Jerusalem on the 24th, passing the Basilica of El Mukâtir, which Major Wilson supposes built on the traditional site of Abraham's altar. This, as well as the Church of Birch, I planned carefully, as no plan has been as yet published. The curious church of El Khadhr, near Tyyibeh, was measured and drawn by Sergeant Black in the same expedition, and the total number of these valuable plates of unplanned monuments throughout Palestine is thus brought at present to 63.

CLAUDE R. CONDER, Lieut. R.E.,  
*Commanding Survey Party.*

## MR. TYRWHITT DRAKE'S REPORTS.

### XVI.

JERUSALEM, *January 3, 1874.*

El Kal'ah,  
 called also  
 the Tower  
 of David.

SOME time ago I was induced by the patchwork appearance of this building to make a careful examination of it in company with Herr Schick. The general impression left on my mind after this examination is that the stones (of the lower part) are *in situ*—that is to say, that the building has not been reconstructed with old materials. The upper part need not be taken into consideration, as it is of undoubted mediæval construction. The basement of the tower is concealed by a glacis and other constructions, which probably date from the period of the Crusades. Eight courses of large stones are visible above this. On some of them there is a double draft, which, being in an unfinished state, leads to the conclusion that the draft was worked after the stones had been set in their places. The width of the draft, as I measured it, in many places was 3, 4, 6 or 7 inches, the greater breadth being always at the sides or bottom, usually the latter. The height of the courses varies from 4ft. lin. to 4ft. 2in. The following are the lengths of several stones which

I measured: 8ft., 5ft. 2in., 9ft. 2in., 13ft. 7in., 9ft. 5in., 10ft. 9in., 14ft., while the breadth at the north-east corner varied from 3ft. 7in. to 3ft. 5in. At this point I was unable to detect any cement between the courses. The bosses are irregular, and project from 4in. to 5in., the former being the more usual.

The tower, especially on its eastern face, has been much cracked and damaged by earthquakes and time. These gaps and cracks have been stopped by the Turks with a liberal dose of small stones and mortar, which gives the tower the appearance of being more ruined than it really is.

One of my chief objects in examining the building was to see if there were any practicable way of deciding the question as to whether it is solid or not. There is a tradition that Ibrahim Pasha forced an entrance but was driven back by a miraculous outburst of fire; or, as we should say, by fire-damp. Since that time no attempt has been made to solve the difficulty. A careful examination of the exterior led me to believe that the only place through which access can be gained to the interior is by a small window—now closed with small stones and mortar—immediately beneath the modern bevel which divides the mediæval from the other construction. I send a sketch of the stones at this point which will give an idea of the masonry.

In the north-west part of the fort are two wells, marked on the Ordnance Survey. They are called Bir el Hadid (*iron*) and Bir el Hissar (Turkish: *castle*). The latter is interesting from the fact that its supply of water is said to be derived from and from beyond the Russian buildings. If this be the case, as there seems no reason to doubt, the old aqueduct found by Dr. Chaplin when building his house outside the town, is probably one of the system which supplied this part of the town with water.

With this report I send you a sketch of one side of the Kubbet el Sakhrah as it now appears, with the casing of Kisháni tiles stripped off, during the so-called process of restoration.\* It discloses a feature which hitherto must have been quite unknown, as it was concealed on one side by the encaustic tiles, and on the other by a thick coating of plaster. This feature is the round, arched balustrade, which forms the parapet of the outer wall.

Kubbet el  
Sakhrah.

Those who have stood on the leads of the lower building, below the central dome, will have noticed that a parapet wall about 7ft. high surrounded them. This, before the outer coating of tiles was affixed, was an open row of semicircular arches with plain capitals. Of these arches there are thirteen on each side. It has been, I believe, long known that the present pointed windows are built into older semicircular arches, of which there are six on each side. I hope that, as soon as the weather permits, a photograph will be taken of this very interesting disclosure.

The whole of the Haram el Sherif is now being restored under the

\* I purposely call it a sketch, as, owing to deficiency of scaffolding, I was unable to take all the measurements necessary for a detailed plan of elevation.

direction of an Armenian Christian architect, Serkís Effendi. The Masjid el Aksa is already finished, and reeks of whitewash and tawdry painting. A fine glass chandelier, said to have cost twelve hundred pounds (Turkish) in London, and presented by the Validé Sultana (queen-mother), is now being put up in it. The Kubbet el Sakhras is filled with scaffolding inside, so that one cannot see what progress is being made. The capitals of the pillars beside the Mehrab el Hanafi in the Kubbet el Sakhras have been a little cleaned, and prove to be Christian work having heads at the sides. They are not unlike those found by Professor Palmer and myself on the north-western minaret of the Haram. Most of the tiles on the outside are being taken down and reset, the gaps, where necessary, being filled up with modern Constantinople ware. All the mouths of the cisterns have been closed with iron gratings, which are kept locked, and some little effort has been made to render the low-level aqueduct from Bethlehem and Solomon's pools serviceable.

Arabic In-  
scription  
from  
Ramleh.

The inscription, of which the following is a translation, is engraved upon a long block of grey marble, and lies on the southern side of the enclosure adjoining the White Tower—frequently, though erroneously, called by travellers the Tower of the Forty Martyrs—at Ramleh. To the west of the town there is also a Cufic inscription in the plaster of a cistern called El 'Anayziyeh. This may be of some interest, but hitherto I have found that the want of light, and the constant dampness of the plaster, have prevented my copying it accurately.

The final part of the inscription has been purposely defaced :—

“In the name of God the merciful, the compassionate. None restores the mosques of God but he who believes in God and the last day. And God, whose majesty be exalted, allowed the issuing of the mandate (?). Because of the knowledge which he beforehand had permitted to his servant the Poor one, who relies upon him and turns to him in all his affairs, who is strenuous in his ways, Nasr el Dín, the Assister of the Religion, and his Prophet, and the . . . . of his Friend, the most majestic Sultan, the Intelligent, the Crescentator, the Conservative, the Fortifier, the Defender of the Faith (*mujahid*) of this world and the next, the Sultan of Islam and the Moslems, Bibars ibn 'Abdallah Kasím, Commander of the Faithful, and may God spare him to us. And he sallied forth with his victorious army on the 10th of Rejeb the Unique from Egypt, with the object of going on a holy war and making a raid upon the Men of Sin and Obstinacy, and he halted at the foot of Yafa in the beginning of the day, and he conquered it by the permission of God at three o'clock of the same day.\* Then he ordered that this dome should be begun over the lanthorn . . . . . by the hand of Khalil ibn Dhúr . . . . . May God pardon his sen and his parents . . . . . in the year sixty and six and six hundred . . . . . and the Moslems.”

\* Sultan Bibars in 1266 A.D. finally took Ramleh and Jaffa from the Christians.

"When speaking of the White Tower of Ramleh, Dr. Robinson (iii. 38) makes a mistake in saying that the inscription over the door bears the date of 710 A.H. (1310 A.D.); it really is 718, as stated by Mejir el Dîn (quoted l. c.), and says that the work was completed in the middle of the month Shabân, and further gives the name of the builder as "Abu'l Fatah, son of our Lord the Sultân, the martyr, the King el Mansûr."

The persistence of Dr. Robinson in wishing to make out this "White Mosque" to be a khan, in opposition to the statements of Arabic writers, is equally curious with his wish to transform vaulted cisterns into warehouses. Such stores are never found in khans, as goods would be open to robbery, which is not the case when, as they invariably are, they are stored in small chambers, of which the owner keeps the key. The shape of the building is that always employed by Mohammedans till after the usurpation of the Khalifate by the Tartar Dynasty, and numerous examples are to be found in North Syria, Egypt, and North Africa. The usual form is a courtyard, with a single arcade on three sides, that on the south, or towards the Kibleh, consisting of two or more rows of arches. In mosques of this early date the minaret is frequently, though not invariably, placed in the centre of the north side (as here), or in the north-west corner.

The makam of the Arb'ain Maghâzi (forty champions ?) is in one of the vaults, and though these saints, under the different titles of Arb'ain Shahed (forty martyrs), frequently occur in Moslem Palestine, early travellers seem to have imagined that a Christian church, dedicated to the forty martyrs of Cappadocia, must have formerly stood here, and hence the absurd belief that the minaret was the old belfry. This tradition, too, seems not to have originated until two centuries and a half after the building of the tower.

This branch of the Survey would lately have presented many difficulties to one unacquainted with the various dialects of Palestine. The fellahîn south of Jerusalem speak with a different pronunciation to those farther north, while the semi-Bedawi tribes, such as the 'Abbaydiyyeh and Ta'amireh, differ both from them and from the genuine Bedawîn farther east. These latter again have a *patois* differing much from the Arabic of the south.

Nomen-  
clature.

This is not the place to discuss the differences of language found in these various dialects, but I will instance the pronunciation of a few words to show how easily one ignorant of these differences might be deceived. L and N are frequently interchanged, especially at the end of a word. The kaf is by the fellahîn and some Arabs pronounced *ch* (as in cheat), and this sometimes degenerates into *sh*. The kaf is pronounced in four ways. 1. By not pronouncing the k, but supplying its place by a sort of catch in the breath, or hamzeh. 2. Properly as a hard strong k. 3. As g. 4. As j. The first method is common throughout Syria and the large towns of Palestine. The second is rarely used, except by well-educated persons in the towns, and some of the fellahîn. The third is

affected by the southern Bedawín, and the fourth by the Bedawín east of Jerusalem. The other day I quite puzzled a native friend of mine, a man of unusually good education, by asking him to explain some ordinary words which I pronounced to him *à la* Bedawí.

To instance what I mean, I may say that the Hajr Dabkan is called by various men Dabchan, Dablich, Dabkil, and Dabchil. The transposition of letters in a case like this is of course not unusual in most languages. Again, the Arabs always called the great wady between Jericho and Jerusalem Wady Jelt, while the fellahín say Gelt or Kelt. Yet the same men who say Jelt invariably say Khirbet Gumrán, never Jumrán; always gamr (the moon), never jamr; but yet they say jahjúr for kakhkur (a pile of stones), and rafjina for rafikna (my friend). As yet I have not been able to find any rule by which they are guided in this use of g and j for k. The use of ch for k, though puzzling at first, is in reality a great help to the transcription of names, as it distinguishes beyond a doubt between the hard and the soft k.

The Hajr Dabkan, which I mentioned above, is an upheaved ledge of rock of some 50ft. long and 12ft. to 14ft. high. It is famous throughout the countryside for the legend attached to it, which runs thus. It happened that El Dawwári, the ancestor of the Arabs Abu Nusayr—a branch of the Hetaymát, who live east of Jerusalem—was making a pilgrimage to Jerusalem, accompanied by his slave Dar'aya, when suddenly his camel fell down dead. Undaunted by this misfortune, he mounted a rock (some say by the advice of the angel Gabriel) and called out, "Sír ya mubarak" (start off, blessed one). The stone thereupon arose and carried him as far as this place. Like all holy spots, it is the repository for ploughs, grain-pits, &c., and is decorated with the usual Arab offerings of rags, sticks, glass bracelets, &c. A short distance off is a burial-place of the Abu Nusayr, called Makbaret el Dawwars. It is usual for Arabs of another tribe before passing through these to cry out "Destúr (permission) ya Dawwars," and, if he be sufficiently instructed, to mutter a few words of the Fat-hah or opening chapter of the Korán.

The boundary line of Judah, east of Jerusalem, is described in Josh. xv. 5, 6, 7, thus: "And the east border was the salt sea, even unto the end of Jordan. And their border in the north quarter was from the bay of the sea at the uttermost part of Jordan: And the border went up to Beth-hogla,\* and passed along by the north of Beth-arabah; and the border

\* Is it not possible that the En-eglaim of Ezekiel xlvii. 10 is the same as this Beth-hogla? In Arabic, the 'Ain is not very unfrequently changed into ha; but whether this change occurs also in Hebrew I cannot at this moment say for certain, though from the cognate nature of the language it seems probable. In the vision of Ezekiel the names En-gedi and En-eglaim seem to denote extreme points, and there is nothing, as far as I can see, from the context, to favour the idea that it is near En-gedi ('Ain Jidy). In describing Beth-hogla, the author of "Tebouth Hoarez" ("Fruits of the Earth," a Jewish treatise on Palestine), in ch. iii, p. 53, concludes by saying that he is of opinion that 'Ain Hlogla and En-eglaim are one and the same.

went up to the stone of Bohan the son of Reuben. And the border went up toward Debir from the valley of Achor, and so northward, looking toward Gilgal, that is before the going up to Adummim, which is on the south side of the river: and the border passed toward the waters of En-shemesh, and the goings out thereof were at En-rogel." In the eighteenth chapter, vv. 17, 18, 19, where the adjacent boundary of Benjamin is given, this account is repeated, with the difference that Geliloth\* is put for Gilgal, Debir is omitted, and Arabah is put for Beth-arabah. The latter, however, by comparison with v. 22, is probably correct. The valley of Achor, too, is omitted.

Let us now now take each point separately, and see how the line is likely to have run. It is plain that the Dead Sea formed the eastern boundary as far as the Jordan mouth, and that thence the line ran north-eastwards to Beth-hogla. There seems but little doubt that this name is preserved in the Arabic 'Ain Hajla, and as natural features were probably chosen as the boundary lines, the wady which debouches near the Jordan mouth, called in its lower part Khawr el Kataf, and in its upper Khawr el Tamrâr, may perhaps have been the line it took. This valley passes by Tell el Moghyfer, where there are ruins of early Christian if not of older date. Being the only place in the neighbourhood where there are any ruins of importance, it is perhaps not unlikely to have been the site of Beth-arabah.

Then comes the stone of Bohan, the son of Reuben. Unfortunately, the clever identification of M. Clermont-Ganneau (*Quarterly Statement*, New Series, No. II. p. 105), will not hold good, and I believe that M. Ganneau himself has come to much the same conclusion. On visiting with him the boulder to which the Arabs apply the name of Hajr el Asbah, we found that the name is not asb'a (of the finger), but asbah (whitish) (*faras sabha* is a mare with a long white mark on her forehead). Its position, too, precludes the possibility of its being the stone in question, as it lies six miles south of Jericho. The line then goes up towards Debir from the valley of Achor. Of the city of Debir no traces seem to remain, unless it be in the name Thoghret el Dabr—the Pass of Dabr—which lies a little west of Khan Hathrûrah, on the Jerusalem and Jericho road. The valley of Achor is most probably Wady el Kelt,

\* *Geliloth*. This word, which is here substituted for the Gilgal of Josh. xv. 7, while the same expression is used in Hebrew with regard to the position of each, namely, "over against" (נגד) the ascent of Adummim, is translated *ad tumulos*. I cannot help thinking that it is not a corrupt reading, as has generally been supposed, but that the line of Benjamin's boundary is merely described in rather different words to those used in laying down that of Judah. This being the case, the tumuli referred to would be some of the many mounds which form such a very conspicuous feature "over against" the ascent to the mountains. Of the many "tells" near Jericho, by far the most conspicuous and important are the five or six nearest the mountains.

there being no other valley than it and the before-mentioned Khawr el Tamrâr anywhere near Eriha. Next we have "the going up to Adummim, which is on the south side of the river." By the river, Wady Kelt only can be meant; it is the most prominent feature here, and contains besides three sets of springs.

Adummim.

Adummim in both the above-quoted passages is coupled with the "going up to" or ascent to it. It seems most probable that this must be placed at Tel'at el Damm, the mediæval fortress, surrounded by a rock-hewn moat, which stands above Khan Hathrûrah, and commands the Jericho road. As will be seen, the name "Mount of Blood" applies not only to the castle, but to the eminence on which it stands. The road from the Ghor to this point is nearly all uphill, while between it and Jerusalem there are many ups and downs: hence the term "going up to Adummim" would be applied to that part of the road between Tel'at el Damm and the Ghor, and this lies on the south side of the Wady Kelt.

With regard to Adummim, M. de Sauley has arrived at the same conclusion as myself, but curiously enough he was led to it by a wrong name being given him. Khan Hathrûrah was called to him Khan el Ahmar (the Red Inn), while the name Tel'at el Damm seems to have escaped him altogether. He very properly argues—if Tel'at el Damm be substituted for Khan el Ahmar—that the peculiarly bright red patches of rock at this place gave the reason for the various names: Adummim, the mediæval Tour Rouge, and the modern Tel'at el Damm. The Arabs say it is called the Mount of Blood because of a severe battle once upon a time fought there, but the bright red limestone and marl are much more likely to be the true cause.

Now remain En-shemesh and En-rogel. Of the former name no trace remains, unless it be in Magharet el Shems (Cave of the Sun); but this lies north of Wady Kelt, and on the other side of the watershed. I should not have mentioned it but for a rather curious expression used by an Arab with regard to it. I asked him, while talking of the cave, whether there was no 'Ain el Shems (Spring of the Sun), to which he replied, "This is 'Ain el Shems;" and on my making him explain himself he said they sometimes called the cave the Eye of the Sun ('ain being a spring or an eye), because the rising sun shone directly into it—that it looked directly in the eye of the sun. En-shemesh is, however, more probably 'Ain el Hawdh, east of El Azariyeh, beside the high road, or else the neighbouring well of Bir el 'Add, which contains a never-failing spring. The much disputed En-rogel I am in favour of putting at the so-called Virgin's Fount, and if this be the case the boundary-line from the edge of the Ghor would just correspond with the present high road from Jerusalem to Eriha.

The above quoted author a little farther on (*Voy. en Terre Sainte*, vol. i., p. 196) falls into a double error by accepting the name Tell Abou-s-Salaît, for the mound near the Jericho road, and by attempting to connect it with

the Hebrew Gilgal (which has a sense of rotundity or rolling), because it is a round tumulus. The real name of the mound is given in a note, but the word 'alayk does not mean *clots of blood*, but in Bedouin dialect signifies a *nosebag* for a horse or camel; it might also mean a bramble, but the former is the explanation given me by the natives. None of the Arabs or fellahin had ever heard of the name Tell abu Salayt anywhere in their country. There is a place of that name east of the Jordan, called after a tribe of Bedawin of that name. Again, in the Book of Joshua we are expressly told (v. 9) that the place was called Gilgal, because the reproach of Egypt was there rolled away from the Hebrews; not on account of any natural feature at the spot.

The Tulul Abu'l 'Alayk (vulg. 'alayj), one of which is north and the other south of Wady Kelt, are not improbably the two forts of Thrax and Taurus, mentioned by Strabo (bk. xvi.) as standing at the entrance to Jericho, and which were ultimately destroyed by Pompey. May not the Bayt Jabr too be the Arabic form of the Greek *κοπρος*, especially with the confusion that exists between j and k? Josephus tells us (*Ant.* xvi. 5. 2, and *Wars* ii. 18. 6) that Herod built a fort of this name above Jericho. At present there is only a small mediæval or Saracenic building, but this is built on a scarped rock, and fully commands the road which runs immediately beneath and beside it.

Fort of  
Jericho,  
Kupros,  
Docus, &c.

The name 'Ain Dūk is doubtless, as first suggested by Dr. Robinson, the word *δῶκ* or *doch* mentioned in 1 Macc. xvi. 15 as a small fort in which Simon Maccabæus and his two sons were treacherously murdered by his son-in-law Ptolemy. Near the makam of Ali ibn Tāleb M. Ganneau found two rock-hewn tombs, with pigeon-hole loculi; immediately below (south-west of) there are traces of somewhat extensive ruins called Khirbet Abu Lahm. On returning from the tombs we visited the hill-top immediately above the makam, and found that the land side had been protected by a rude wall and a ditch, while there were traces of a tower and other buildings to the south. This seemed to me a very likely position for the "little hold" of Docus, for this would be, as Josephus tells us it was, "above Jericho," and it would also command the Wady Nuway'ameh, which here forms a large recess into the mountains, and the various hill-paths which lead up to Bethel, Rimmon, &c.

With regard to the site Jiljūlyeh, examined by Lieut. Conder, Gilgal, there is much to be said. Josephus states it to have been 10 stadia from Jericho, and 50 from the Jordan. Now this is impossible, as the whole plain at Jericho is only a little more than six miles, or about 50 to 52 stadia wide in this part. Instead, however, of laying, as it is but too much the fashion to do, the fault on Josephus's shoulders, let us see how a copyist's error may have affected the question. Fifty is represented by Ν, and this is so easily changed to Λ (thirty), that if the case requires it we may do so without much hesitation.

If the Jericho of Josephus stood near the modern Eriha, these measure-

ments of 30 by 10 stadia exactly suit with the position of Jiljulyeh. On the other hand, after hearing the legend from the mouth of one of the Abid, how the Imám, 'Ali ibn Taleb, mounted on his horse Maimun, attacked the infidels inhabiting the Medinet el Nahas (City of Brass, which stood near the Shejaret el Ithleh and Jiljulyeh), overthrew their walls and slaughtered them, but finding the day too short called out to the sun, "Enthani ya mubárameh," and how the sun turned and stood still over the ridge still called Dhahret el Theníyeh; after hearing this adaptation of the history of Joshua I could not rid myself of the suspicion that this legend was derived from Christian sources originally, and consequently that the name Jiljulyeh must be accepted with caution. Taking into consideration the fact that there were at least six monasteries in the immediate neighbourhood of Jericho, without reckoning Mar Saba, Dayr el Mukellik, and Dayr Kharaytún, it is not only possible, but even probable, that Bible histories have by their means been transmitted to the Arabs, who, as is usual in such cases, have transferred the names of the principal Persons and Places from the Unknown to the Known.

Monas-  
teries.

Of the monasteries of which we find the ruins, four, namely, Kasr el Yahúd, Kasr Hajla, Tell Moghyfer, and Khirbet Mefjir (besides Wady Nuway'ameh) are in the plain, and three in the mountains, namely, the caves of Kuruntíl, Dayr Wady Kelt, and Dayr el Mukellik. In all of these, except Kasr el Yahúd and Khirbet Mefjir, frescoes more or less defaced have been found. At the former place are several graphitæ seemingly in Georgian, one in Greek, of which I could only make out a few letters and the following date (?) which would read  $900 + 20 + 90 + 9 = 1019$ . I may observe that this method of writing a date with several letters when fewer would have sufficed, frequently occurs in the inscriptions I found in the 'Alah (see "Unexplored Syria," vol. ii.) At this river there is pretty conclusive evidence that the coarse tessellated pavement was used by the Crusaders in the fact that in the upper story some of it still remains *in situ* over a vault with a pointed arch.

At Dayr el Kelt, Arabic *graphitæ* in ordinary character (not Cufic) show that the first frescoes existed up to a comparatively late period. These lower frescoes are much superior in composition to the later ones by which they are covered, these latter being simply mural paintings on coarse plaster. The figures of the various saints have, as usual, their name and quality written above; one is of some little interest as showing that the monastery of St. Kalamon was not then as now quite sunk into oblivion. The other names, such as  $\delta \text{ \acute{\alpha}\gamma\iota\omicron\varsigma \text{ \acute{\alpha}\theta\alpha\nu\alpha\sigma\iota\omicron\varsigma \text{ \tau\omicron\upsilon} \text{ \acute{\alpha}\lambda\omega\nu\omicron\varsigma}}$ , have no interest. The rude bilingual inscription over the door refers to the restoration of the monastery, but gives no date.

Dayr el Mukellik is situated in by far the wildest and most inaccessible spot of all the haunts of the holy men of old, who certainly, as I told our Arab shaykh Jemíl, to his great amusement, lived amongst the rocks like the *wabr* (coney or hyrax), which always choose the

wildest and ruggedest spots for their *habitat*. This monastery is situated in even a wilder spot than that in Wady Kelt. Our road to it from 'Ain el Sultan lay through El Hazim, as the downs around Nebi Musa are called. Striking the Haj road from this place to Jerusalem, which is kept in good repair on account of the great annual pilgrimage, we rode along almost as far as Rijm Halayseh. Turning to the left we soon found traces of an ancient path constructed on the sides of a rough wady. Leaving our horses, we scrambled down on foot to the ruins which are situated at the foot of a precipice some 60ft. or 80ft. above the wady bed. The buildings that remain are small and insignificant; high up on the face of the cliff are two niches of masonry, clinging like swallows' nests to the rock, containing frescoes, one of the Blessed Virgin and the other of the Crucifixion. From the subjects of the paintings I am led to believe that they are not of very ancient date. Below the ruins is a large cistern, and around are several caves which seem to have been used as lairs by the Eremites.

The scene as we sat on the ruins was one of the wildest I have come across in Palestine. Above us towered the ledges and precipices of rust-coloured limestone; the sky above was wild and covered with storm-scuds relieved by frequent gleams of sunlight. Beneath us a ruddy torrent formed by the late rains washed and foamed; griffon vultures sailed majestically down the valley on full-spread wings, flocks of rock-doves dashed by occasionally, and now and again the clear full note of the orange-winged grackle rose startlingly shrill above the murmur of the waters. But for these the silence was unbroken, and not another living creature appeared in the solitude. What an existence must have been that of those who devoted themselves to death in life, to wasting the energies and vital power bestowed on them in droning and sleeping away their time instead of courageously doing their duty in the battle of life, may be seen by those who look deeper than the surface in such convents as Mar Saba, Sta. Katarina in Sinai, and others similar.

It was almost by chance that we discovered the fact that a monastery, or at all events a church, had existed at Tell Moghyfer. Some stones had lately been dug up by the natives, and on turning over one of these I found a portion of fresco containing a few Greek letters attached to it. Jebel Ku-  
ru til.

The existence of the apse of a small chapel on the summit of this mountain is well known, but I am not aware that the remains of the strong crusading fortress beside it, with its steep glacis and rock-hewn fosse on the land side, have ever been described. The main building—of which only the outer walls are traceable—is about 250ft. long by 100ft. wide. On the north, east, and south it is protected by the precipitous cliffs. Westwards a crescent-shaped ditch—now much filled with *d'bris*—has been cut in the rock. I could find no trace of any cistern or reservoir, which must, however, have existed, as there is no water nearer than that of 'Ain Duk, which flows some nine hundred feet below.

A similar fortress, also cut off from the land side by a fosse, is to be seen—but in even a more ruinous condition than that on Jebel Kuruntil—on the extreme edge of the hills on the north side of Wady Keit. De Saulcy called it Beit bint el Jebail, but this name is not known at all. After much trouble I succeeded in finding the true name to be Nusayb el 'Awayshireh.

Most of the Christian ruins near Jericho are built of a soft oolitic limestone, which seems all to have been quarried at Khirbet el Samrah, an extensive ruin some four miles north of Eriha. Here the quarries and quarry caves are extensive, and probably date from a very early period. The oolite here is overlaid by beds of stratified mud and conglomerate containing flints and water-worn stones.

Khirbet  
Gumrán.

Khirbet Gumrán lies two miles north of 'Ain Feshkah, on a spur at the base of the cliffs. The ruins are rude, and consist of a wall to the east; the steep slopes to the south and west seeming to have been considered sufficient protection in themselves, while to the north the ground is occupied by a collection of buildings now an indistinguishable mass of rude stones. A small birket lies between this ruin and the wall, and like all the other remains, is built of unhewn stones, which are packed with smaller ones and roughly plastered. The most remarkable feature at this spot is the enormous number of graves which lie beside it. I computed them at from 700 to 750, including some outliers on two adjoining hillocks. Those south of the ruin lie 20 degrees east of north, the head being to the south. They are arranged in regular rows, and close together, and are all covered with a paving, or rather roofing, of uncut stones: a large upright stone marks the head, and a somewhat smaller one the feet. On digging into one of these in company with M. Ganneau, we found, at the depth of 41 inches, sun-dried bricks, 15 by 11 inches and 9 inches thick, overlying the body. The bones were much decayed, and I could only obtain some teeth, which were unusually large and in good condition. No objects of any kind were found in the grave. On digging into another tomb we failed to find anything at a similar depth, and were prevented from carrying on our researches further by the approach of night.

The curious regularity of the graves, their position—so unlike that employed by either Christians or Moslems—and the use of sun-dried brick, renders the identification of the place a puzzle which seems likely to remain unsolved, as no inscription or even worked stone was to be seen amongst the untrimmed materials used. The only thing besides pottery that I found was a small nearly defaced copper coin, presumably Jewish.

Eriha and  
climate.

The pleasant clear weather, with cool breeze and warm but not hot sun, which succeeded the first rains, and the verdant appearance of the country, rendered the first fortnight of our stay at 'Ain el Sultán very enjoyable. This agreeable weather, however, is perhaps the most unhealthy part of the year; and so it proved to us. Fourteen men out of seventeen connected with the Survey suffered from more or less severe attacks of fever. The change, however, to the high level of Jerusalem,

and the great kindness and attention received there by those who were ill, has restored the whole party to their state of wonted health.

The climate of Jericho would seemingly have changed since the days of Josephus, or more probably the surplus irrigation was not then, as now, suffered to become stagnant pools, causing malaria and fever. The great Jewish historian in many passages vaunts the wonderful fertility of the place, and calls it *ῥεῖον χάριον*, a region fit for the gods. At present the luxuriance of vegetation is almost tropical, but the inhabitants are lazy, dissolute, and incapable of continuous work. As the governor of the village told me, "to rouse them you must take a stick, to make them work a *kurbāj*" (cowhide). All kinds of vegetables, such as tomatoes, vegetable-marrows, &c., are in season all the year round. Grapes grow to a great size, the vines being trained over trellises supported on poles 4ft. high, as in some parts of the Pyrenees, and occasionally in North Italy. Indigo flourishes, but is seldom cultivated; sugar, too, and cotton, would doubtless succeed. Sloth, however, and indolence on the part of the government and peasants, now reign supreme, where a little care in drainage and steady cultivation might annually raise produce of equal value with the revenues of all the rest of Palestine. The timber, too, beside the Jordan might with but little trouble be made to supply a great deficiency in the Jerusalem market, where nothing whatever but foreign timber can be procured, and that at a high rate; for in addition to the transport from Jaffa, which is longer than that from the Jordan, the sea carriage must also be considered.

During our stay in the Ghor I found that the *bedn* (ibex) still exists in Wady Kelt, never quitting the security of its deep, rugged solitude. Jedu'a, brother of Shaykh Jemil of the Abu Nusayr, is the Nimrod of these parts, and brought a buck into camp one day. He told me it was the sixth buck he had shot in the valley, as he never kills the females; he estimated their number at present at not more than eight or ten in all. I have preserved the skin and horns, which, as far as I can judge without comparison, differ in nothing from the Sinaitic species; the Palmyrene, on the contrary, I believe to be a different variety, with stouter horns. The *wabr*, too (coney or hyrax), is also, though very rarely, found in Wady Kelt. Hitherto, I fancy, the existence of either of these animals so far north in Palestine has not been suspected.

Sleet commenced on Friday, December 26, and on the 27th a heavy <sup>Snow.</sup> fall of snow took place, accompanied by thunder; by Monday, however, nearly all traces of it had disappeared. Owing to the unusual quantity of rain which has fallen (12·59in. by our observations, but that at Jerusalem will probably be more), the wells and cisterns are already nearly full. A few days ago the Bir Ayyub overflowed. This is always a rather unusual occurrence, and seldom if ever has been known to take place before the month of March.

Some interesting discoveries have been made at this ancient site by the Messrs. Bergheim, who have purchased land and been building a house there. The clay image in basso-relievo, of which I send you a

Antiquities  
from Gezer.  
Tell Jezar.

sketch, was picked up by Mr. P. Bergheim, from among the earth turned up in digging for hewn stones for building purposes. This figure is very interesting, and, I imagine, unique; the front seems to have been moulded, to judge from the appearance of the edges and from the rounded back. The headgear, too, is remarkable, and reminds one rather of the castellated crown seen on Sidonian coins. For the account of a statue of Venus at Gaza, which in many respects resembled this figure, see the letter of St. Porphyry (Bolland, *Acta Sanctorum*, Feb., tome iii. p. 648), quoted by F. Lenormant, *Lettres Assyriologiques*, &c., tome ii. p. 165. I am indebted to the kindness of these gentlemen for some flint flukes and an arrowhead also found there. The flint flukes are similar to those I formerly purchased from the Abbé Moretain, who discovered them at Baht Sayúr, near Bethlehem, and which now belong to the Christy collection; the arrowhead is unlike anything I have previously met with in the country.

Maarath.

Maarath is mentioned in Josh. xv. 59 as one of the cities in the mountains of Judah. It seems very probable that this may be the *mons mardes* where St. Enthyimius found ruins (*Acta Sanctorum*, ii. p. 306), and which I now identify with Khirbet Mird near Mar Saba. Gesenius derives the word from a root meaning openness or barrenness; either of these significations would apply equally well to Khirbet Mird, which is situated on a round, almost isolated hill on the west of the Bukay'a or open plain which extends between Mar Saba and the ridge of cliffs overhanging the Dead Sea. The view from the ruin embraces a considerable extent of country, and though there are traces of vineyards in the Bukay'a, still the general character of the surrounding hills is that of extreme barrenness.

Progress of  
the Survey.

The progress of the Survey is most satisfactory, as will be seen by the fact that last year the average amount filled in by each man was 2.35 square miles, and this year is about 2.75 square miles per man on each day in camp. By days in camp I do not include Sundays; but all other days employed in moving camp, penning in, and rainy days, on which fieldwork was impossible, are included, so that an actual day's work is of course much larger than this, which is merely the average of days spent under canvas.

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## XVII.

JERUSALEM, Jan. 2, 1874.

Stormy  
weather.

The exceptionally cold and tempestuous winter still keeps us prisoners here, and were it not for the house kindly lent us by Dr. Chaplin we should be in bad way. Our time, however, is fully employed indoors, and also abroad whenever a few hours of sunshine enable us to go out. The Maritime Plain is such a swamp that the fellahin are beginning to despair of ever being able to get the spring crops in, and say that those

already sown run much danger of being spoiled. The hills are not only impassable for cross-country work, but the winds are so keen and chilling that neither man nor horse could camp out without great risk. The Jordan valley is a simple quagmire, and the *Zór*, or second bed of the river, is in full flood.

Such being the condition of the country we must perforce wait here till not only the rains have somewhat ceased, but till a week's fine weather has rendered the survey practicable. This enforced sojourn here has enabled me to drag up a fuller account of modern Jerusalem than any which, as far as I am aware, has ever yet been published.

The few fine days we have had have been employed by Lieutenant Conder and myself on various small excursions in the neighbourhood. On the 16th we rode down to Ramleh to make a plan of the church there. When camped at Ramleh in 1872, I had not M. de Vogüé's "Churches of Palestine," but felt sure that he would not have neglected such a conspicuous and well-preserved monument. It seems, however, that he was prevented from doing anything by the fanaticism of the inhabitants. In 1872, however, I wandered about the whole building unmolested and unnoticed.

*En route* Lieutenant Conder made a plan of the crusading ruin of Khirbet Ikbala, south-east of Kariyet el 'Anab, and about a quarter of a mile south of the bridge on the high road. This is said by the natives to have been Dayr el Benát, a nunnery, where dwelt the Bint Sultán el Fenish—the daughter of the Phœnician king. Since the telegraph has been laid along the highway they have made an addition to the story, and say that she communicated with her father, whose summer quarters were at Soba, by means of a long wire. Her father's winter quarters are placed at Rathín, as the natives almost invariably call Latrún; between this place is another relic of the daughter in a small tumulus, which I hope to open some day, called Rijm el Haik bint Sultán el Fenish. The aqueduct, which formerly led from near Tell Jezar (Gezer) to the Birket el Jamús at Ramleh, seems also referable to her, as it is named Kanat bint el Káfir—the water-channel of Infidel's daughter.

In Gen. ix. 16 we read that Gezer was taken by Pharaoh, king of Egypt, from the Caananites, and given to his daughter, wife to King Solomon, and in the following verse this latter monarch, we are told, rebuilt it. The connection between Pharaoh's daughter and the Bint el Káfir seems very probable.

Beyond Kariyet el Anab I tried to identify the places mentioned by Schwartz (p. 68, ed. 1852) as Khirbet Midian and Jebel Modüm, but not one of the many fellahín whom I asked had ever heard of such names; nor had I any better luck with his Izpa or Mizpah, near Kastal. Though sometimes ingenious, this author is generally incorrect in his accounts and untrustworthy in his nomenclature.

The effects of the heavy rains have been almost fatal to the carriage road; indeed, if it be not soon repaired it will soon become impassable for wheeled vehicles. In places it is deeply scored by the torrents, in

other parts heaps of solid stones give it the appearance of a wady-bed, while on the plain most of the bridges have been destroyed by the floods. The water was then out to such an extent that between Ramleh and Jaffa it was necessary for them to swim their horses.

Abu  
Shushch.

From Ramleh we visited Tell Jazar, to enable Lieutenant Conder to make a plan of it. The name of the village at its southern end, Abu Shushch, is said to be derived from a dervish who once upon a time, in season of excessive drought, prayed for rain, and was told by a *rammal* (diviner by sand) that if water came, he—the dervish—must perish by it; to this he did not object, and soon water gushed out of the earth and formed a pool into which he stepped and was drowned, and nothing but his top-knot of hair remained in view, and when the people saw this they cried out “Ya, Abu Shushch!”—(oh, father of a top-knot).

Modin.

Returning by El Medyeh, we completed the plan of the curious tombs, which I think without doubt are those of the Maccabees. Dr. Sandreczki, to whom belongs the honour of identifying El Medyeh with Modin, never saw the constructed tombs, but only those hewn in the rock about one-third of a mile south of Shaykh el Gharbawi, beside which former are situated. From this point a great expanse of sea-horizon is visible, and the situation well suits the description of Josephus.”

I enclose a sketch (see p. 59) of the most perfect chamber of the building, which will show by the style of masonry that it is no ordinary sepulchre. I also enclose a proposed restoration of the pyramids mentioned by Josephus (*Ant.* xiii., vii. 6), which I have drawn on the model of the rude funerary bas-reliefs found by Professor Palmer and myself at Petra. This restoration gives a height of eleven feet above the building, which itself must have been nearly as much. This height is sufficient for seven white pyramids, such as are described (Josph. l. c.) to have been visible at a very great distance. The name Kabúr el Yehúd was given to Dr. Sandreczki as applying to the rock-hewn tombs; now the fellahín apply it to both, but the original name of the built-up sepulchre seems to have been El Ikbirreh.

Heb.  
Azmaveth,  
Ar. Hezmeh.

A short distance north-east of Jerusalem is a small village named El Hezmeh, which seems to answer very well to the Azmaveh (עֲזַמְבֵּי) of Neh. vii. 28, and Ezra ii. 24, where its inhabitants are mentioned with those of Anathoth, the modern 'Anáta, which lies a short distance south of Heymeh. The change of 'Ain into Ha is, as I have more than once had occasion to remark, not infrequent.

Kabur Ben'  
Israim.

On the side of the wady north of El Heymeh and opposite to it are five constructions of peculiar form, consisting of a double wall forming a parallelogram from 98 to 176 feet in length by 9½ to 16 feet in breadth; the height varies from 3 to 6 feet. The interior is formed of a mass of loose stones of various sizes. The walls are composed of rough stones, sometimes of great size, packed with smaller ones to render them more even. No mortar is used. In one of them a square chamber is to be seen, and also a kind of cist. Doubtless such cavities exist in the others, and I hope before leaving Jerusalem, if the weather allow of it, to make some

excavations with the object of discovering their character, whether sepulchral or not.

Dr. Robinson's account of these curious monuments (Later Bib. Res. p. 287; ed. 1856) is very incorrect, and unworthy of his usual shrewdness. He says, after various wrong measurements and details, "they are such as the Arabs may have thrown together in no very distant times." To me the rude massive character of the constructions and their disposition give them an air of great antiquity. Lengthwise they lie, generally speaking, north-east and south-west, but the direction varies in each. Among the people they are known as the Kabûr Ben' Israim. When I first heard this curious form I had it repeated, and then it was put in the more usual way, Kabûr Beni Israîl, but the former was given me by three separate individuals. They are also known as Kabûr el Amâlikeh.

Mozah, a town of Benjamin (Josh. xviii. 26), usually considered <sup>Mozah.</sup> to be Kolonyeh, because in the Mishna a place named Motsa is mentioned as being below Jerusalem, and that willow branches were brought there for the Feast of Tabernacles, and the Gemara adds that the place was a Colonia (see further, Dict. Bible ii. 439). The name seems to linger in the Khirbet Bayt Mizzeh, which lies on the hill above Kolonyeh northward.

A large quantity of this substance has lately risen, and specimens have been brought into the Jerusalem market by the Arabs. The quantity is estimated at thirty kantars, or about seven and a half tons. Being exceedingly hard and of very good quality, this bitumen used to fetch as much as forty-five pounds the kantar in Austria, where it was much used in making varnishes. At present it is not worth more than four pounds the kantar, owing to the discovery of a mine in Europe which produces an equally fine quality. <sup>Bitumen from the Dead Sea.</sup>

CHARLES F. TYRWHITT DRAKE, F.R.G.S.

# THE JERUSALEM RESEARCHES.

LETTERS FROM M. CLERMONT-GANNEAU.

## III.

JERUSALEM, *October 5—10, 1873.*

Excursion  
to Jericho.

THE day before yesterday we returned from Jericho, having taken advantage of Lieutenant Conder's presence there to visit the place, in the hope of verifying certain points. We passed five days in the Survey Camp, meeting with the most friendly reception from the officers in charge, and came back here on the third.

The two points which were the motives of this journey were (1) the examination of the site of the Hajar el Asbah, which I had for a long time,\* for various reasons, proposed to identify with the Stone of Bohan;† and (2) the project to excavate a cemetery near Goumran pointed out as curious by MM. Rey and De Sanley. In view of the latter I had brought with me two peasants of Silwan, formerly workmen under Captain Warren, and taken certain tools, such as picks, shovels, and crowbars from the Society's storehouse. The Jericho people are of no use for this kind of work, as they even employ the fellahin of the mountains to cultivate their own lands.

Our journey was accomplished without incident, except that arriving after nightfall, and badly guided by our two peasants, we wandered about for two hours in the darkness and the thorn thickets before discovering the camp, masked as it was by the Tell el A'in, at the foot of which it was placed.

Hajar el  
Asbah and  
the Stone of  
Bohan.

We started the next day, accompanied by Messrs. Conder and Drake, for Hajar el Asbah‡ and the Khirbet Goumran. We arrived at the territory (Ardh) of the former after crossing in succession the Wady el Kelt, the Wady Daber, and the little Wady el A'sala. It is a small plain extending between the foot of the mountains and the sea, to a bold and well-marked promontory which one of our guides called, I believe, Edh-dh'neib e'yeir (?). In the northern portion of this region, almost at the foot of the peak, lie four or five great blocks of rock, probably fallen from the summit or flank of the mountain. The most northerly of these, very nearly cubical in form, and measuring two metres and a half in height, was pointed out to us as the Hajar el

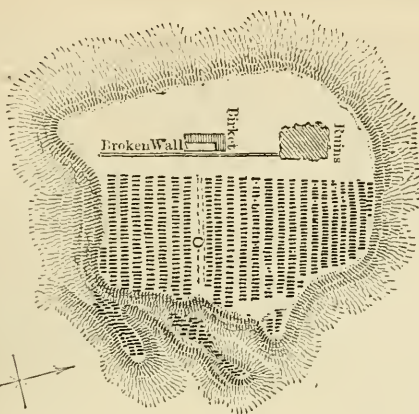
\* *Quarterly Statement*, 1871, p. 105 ; and *Quarterly Statement*, 1872, p. 116.

† Joshua xv. 6, and xviii. 17.

‡ Hajar el Asbah is marked on the maps of Vandevælde and Murray as Hajar Lesbah, on the north-west of the Dead Sea.

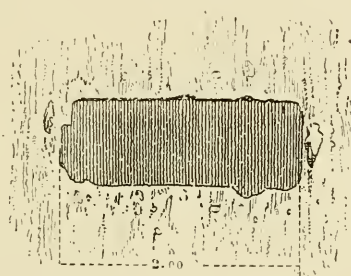
# Goumrân

Plan of Plateau

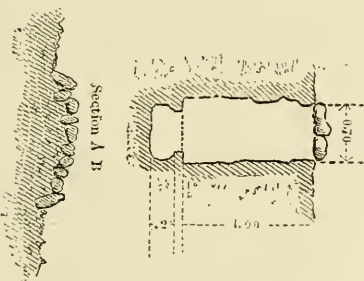


Position of Tombs N 20° E

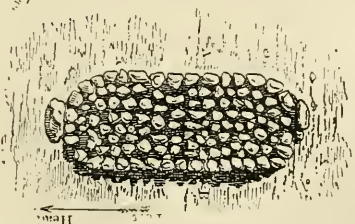
Plan of a Tomb



Section C D



Plan of a Tomb



*Tombs enclosed*

Asbah: it is cloven in the middle. The scantiness of its proportions forms a striking contrast with the importance accorded to this simple piece of rock, which, without any thrilling character, has nevertheless given its name to a surrounding piece of country comparatively large. The form of the stone hardly appeared to me to justify the signification which in my memoir on the subject I had assigned to the Hebrew Bohan, and to the Arabic word Asbah (for Asb'a), *thumb* or *finger*. On the other hand, I discovered close by, and standing on the side of the hill, a remarkable isolated peak, which struck me at first sight as well as my companions. This point of rock presents a striking resemblance to a fist closed with the thumb raised, as will be easily seen by looking at M. Lecomte's sketch. Nothing more natural than to apply to this finger-shaped point of rock the characteristic denominations of *thumb* or *finger*, only unfortunately the guides assured us that the Hajar el Asbah was really the fallen block we had just visited, and that this other rock was called *Sahsoul H'méin* or *Gourdet Sahsoul H'méid*, which it seems difficult to attach etymologically to *Eben Bohan*.

What are we to understand from these facts? It may very well be that the Arabic translation of the Hebrew word at first applied to the peak has been transferred to one of the blocks fallen from the mountain close by. What would seem to justify this conjecture is that the name of Asbah is extended over the whole of the plain, as we have seen. There seems nothing impossible in supposing that after this extension of meaning it should be again concentrated on a single block within the space, and that towards the point by which the place was ordinarily reached, the north. The transference of name might possibly be dated back to the falling of the stone itself from the mountain; such an accident may have struck the next visitors so much as to have caused them to fix the denomination of the whole region to this single stone.

I collected from the Bedawi who accompanied us a variation of the name Hajar el Asbah, viz., *Hajar es Sobeh*.

Not only the peak itself in which I wished to find the Stone of Bohan has a highly characteristic form, but the shadow which it threw on the side of the hill, at the moment when we passed before it, gave a curious profile suggesting also the signification of the name.

Lastly, I will add to these observations one which appears to me of great value in this important question of Biblical topography. This peak marks the exact point where the mountains which fringe the western side of the Dead Sea change their direction, or at least to the eye appear to change it. It is at the extremity of the Cape which, looking from north to south, closes the landward horizon, appearing from this side to plunge into the sea. It is a point which forms a natural position, and there is therefore nothing astonishing in its being chosen as one of the points in the border line between Benjamin and Judah. This consideration appeared to me so important that on our return I begged M. Lecomte to make, from the top of the Tell Ain es Sultan, a panoramic

view of the plain of Jericho and its horizon of mountains from the *Tawahîn es Soukkar* to the sea.

We must remark that the peak only presents its profile clearly indicated when one looks at it from the north; seen from the south, as we remarked on returning, it had lost its first aspect; on the other hand, it resembled now, in a very striking manner, a colossal statue, seated in the Egyptian manner.

After a brief halt at Hajar el Asbah, we continued our journey to the south, to examine the site of the Khirbet Gomran, and especially the cemetery pointed out here by MM. Rey and De Sauley. The ruins are quite insignificant in themselves: a few fallen walls of mean construction; a little *birket*, into which you descend by steps; and numerous fragments of irregular pottery scattered over the soil. Our attention was principally attracted by the numerous tombs (perhaps a thousand) which cover the mound and adjacent plateaux. To judge only by their exterior aspect they might be taken for ordinary Arab tombs, composed of a small elliptical tumulus, surrounded by a range of rough stones, with two large stones placed upright at the two extremities. All that distinguishes these sepulchres distinctly from modern tombs is the orientation: they all have their major axis north and south instead of east and west. This particularity had been already noted by the Mussulman guides of M. Rey, and it called from them the remark that they were the tombs of *Kouffar* (not Mussulmans).

Excavation  
of the  
Tombs of  
Gomran.

I resolved to open one of the tombs. Our two men of Silwan set to work under our eyes, while we followed—Mr. Drake, M. Lecomte, and myself—the progress of the excavation. After digging about one metre in depth, our workmen came upon a bed of rough clay brick measuring 0.40 × .20 × .12 metres, and resting on a kind of flange cut in the earth itself. On removing these bricks, we found in the grave the bones, partly destroyed, of the corpse which had been buried there; and managed to pick out a bit of a jawbone, with teeth adhering, which will perhaps enable anthropological conclusions to be drawn. There was no article of any kind in the tomb. The head was turned to the south, and the feet to the north. You will gather from M. Lecomte's sketches some idea of the dimensions and disposition of the tomb which we opened, as well as of the general aspect of this enigmatical cemetery. The principal plateau, which contains the greater number of these tombs, is crossed from east to west by a kind of alley dividing the tombs into two zones. It is difficult to form any opinion on these sepulchres, principally on account of their abnormal orientation. Can they belong to some ancient Arabic tribe of the *Jahiliyeh* period? If they were Christian tombs they would offer some characteristic sign or religious emblem, for the employment of bricks to cover the body, and the comparative depth of the graves, show that the tombs have been constructed with a certain amount of care.

I took advantage of Sunday to make a little excursion to Riha and its Riha, environs, accompanied by M. Lecomte. We paid a visit to the *Mutesellim*



ROCK NEAR THE HAJAR EL ASBAH (STONE OF BOHAN).

6. Lecontey 1844

of the place, who resides in the Arab *borj*, in the hope of getting some information from him. We found a man of Riha who pretended to have discovered some days before three stones with inscriptions; perhaps they were only fragments of sculpture such as we had already found at the *Tawâhîn es Soukkar*, mere pieces of capitals and friezes on which the Arabs wanted us to see inscriptions. However that may be, it was impossible for us to get a sight of these three inscribed stones, and the owner ended by saying that he had given them to a man of Silwan.

We then entered an enclosure belonging, they told us, to the Russians, in which had been accumulated a great quantity of ancient cut stones taken from excavations made in the surrounding Tells, and intended to serve for a new building projected by the Russians. We examined with the greatest care this kind of workyard, principally furnished from the excavations at Tell el Matlab, and observed great quantities of architectural fragments of mouldings, bases, capitals, shafts, fragments of sculptured friezes, bits of sarcophagi with garlands, &c., and stones bearing the cross. Farther on, in the garden, almost entirely buried in the soil, was a great block of red granite. It would be important to know exactly the origin of these remains, which are certainly the *débris* of considerable buildings, as some conclusion might be drawn from it as to the site of ancient Jericho.

Fragments  
of sculpture  
from the  
Tells of  
Jericho.

Unfortunately, only a limited faith can be put in the assertions of the Arabs, although the greater part were unanimous in indicating Tell el Matlab as the place which had furnished most of the stones. And, indeed, we found, on the way back to camp, fresh traces of excavations in that Tell, and some blocks recently dug out. This indication agrees well enough with the tradition mentioned below, which places the ancient Jericho at the Tell el Matlab. M. Lecomte went the next day to copy the most interesting of these fragments.

In the afternoon I went alone on a little excursion north of Jericho, taking for guide a fellah of El 'Azariyé (Bethany), who often comes down to Jericho for agricultural work, and knows its environs better than the inhabitants of the place itself, from whom one can get no information whatever.

I went first to visit *Khirbet el Mouffir*, north of the *Wady Nouè'mè*, not far from the aqueduct which crosses the valley and was pointed out to me under the name of *Jesr Abou Ghabbouch*. Its ruins are composed of little mounds extending over a considerable space, some of which have been excavated by Captain Warren. These excavations brought to light, among other things, a fragment of an apsis whose convexity pointed south, perhaps the extremity of the transept of a church of regular orientation. The same name (*Khirbet*, or *Tawâhîn el Mouffir*) is applied to very considerable ruins about a quarter of an hour to the west, at the end of an aqueduct supported by an arcade with nearly semicircular arches. A little wady, a lateral affluent of the *Wady Nouè'mè*, which I remarked not far off, was pointed out to me as the

*Khirbet el  
Mouffir.*

Wady Mouffjir; later on the Bedouin of the locality assured me that it was not the *Wady Mouffjir*, but the *Wady Seürhân*; others again maintained that it was not a wady at all, but a simple place called "the *zaggoums* of Seürhân (*Z'goumüt Seürhân*) since a certain Seürhân had been killed there by the Adouân.

Sanctuary of  
the Imam  
Aly.

We then proceeded to Ain ed Douk, crossing the *territory of the sanctuary of the Imam Aly* (*Ardh Maqam el Imam Aly*), a sanctuary which is the object, in this locality, of the greatest veneration, and is often simply called the *Maqam*. We shall see immediately the curious legend which belongs to this Moslem sanctuary. We passed on our way to the *maqam* by the Tell el Abraïke. The *maqam* has nothing remarkable in itself. I found a Mussulman tomb protected by a low wall of uncemented stones and surrounded by a number of implements and tools deposited by their proprietors under the safeguard of the sanctity of the spot. Farther on are two large shafts, which seem to mark the exact site of the *maqam*. A small plateau in front is fitted with pits dug in the ground, and also confided to the protection of the saint. The *maqam* is at the foot of a considerable eminence called (we shall see directly why) *Mouëdhhen El'lal*, that is to say, *the place where Eblal uttered the call to prayer*. This hill commands all the environs and the Wady Nouë'mè; and its eminently strategic position may perhaps justify us in regarding it as the site of the fortress of Doch or Dagon (?).

Tomb with  
sarcophagus  
and sculptured  
bed.

We continued to ascend the Wady Nouë'mè, which widens at this place, following the foot of the mountains which bound it on the north. Arrived at the Well of Ain ed Dûk, and of Ain Nouë'mè, I went to see a tomb cut out in the side of a hill, the entrance to which is visible from the bottom of the valley. It consists of a chamber with twenty-one perpendicular loculi disposed in two stages. The number 21 ( $7 \times 3$ ) is essentially a funereal number. I remarked two sarcophagi, of which one is longer and broader than the other; on the ground, in the midst of a pile of cut-up straw (*tibën*), lay a fragment of a sarcophagus lid sculptured and ornamented with triangular pediments, and other fragments of lid and sarcophagus mixed up. The chamber had been recently opened, I was told, by a Bedawi, who had managed to make a granary of it. I saw, indeed, at the door of the tomb, the earth which had been taken out of it; it was all mixed up with bones, fragments of pottery and glass, &c., and appeared to have been deposited very recently. By the side of this was another tomb like it, almost entirely filled with earth. I came back the next day and made an excavation, which led to no result of importance. The second tomb, which appeared to me unfinished, had in any case been violated a long time before. We found in the earth at one of the corners bones which seemed to belong to a body inhumed here after the building of the tomb, perhaps of some Arab. Mr. Drake and M. Lecomte went the next day and took drawings of the plan of the tomb and the sarcophagus lid.

Legend. \* It is probably the presence of these tombs which has given rise to

the legend which my guide told me when he pointed them out from the valley. "Deep down in the flat ground of *Abou Lahem* (*fi qā' 'Khaur Abou Lahem*) is a stone with an inscription; beside it is a leaden casket, which contains another of gold, and this contains the body of a man."

The same guide told me that the *old men* of Riha said that the site of ancient Jericho was Tell el Matlab.

The whole of Monday was taken up with the useless excavation of the neighbouring tomb. In the evening, talking over it in the camp with one of the *'Abid* employed by Lieut. Conder, I took down from his mouth certain traditions, which seem to me sufficiently important to be related in detail, because they attach themselves, in a confused but undoubtful sort of way, to the name and story of Joshua. I attach the more importance to these legends—an echo of the Biblical narrative—because they were told me by a man extremely simple and almost a savage, before an Arab audience, who could have pulled him up short, and because the stories themselves have undergone changes too strange and too local not to be original.

The Bedawi began by relating how, not far from the *Tell-el-ithlé*, there exist ruins with *Dawāris* (i.e., ruins of old things), and that there was the ancient Jericho, the City of Brass, *medīnèt en nahas*, surrounded by seven walls of brass. The city was in the power of the *Kouffar* (infidels), on whom the Imam Aly, son of Abou Taleb (he of the *maqam*), made war. Aly mounted his horse Meimoun, rode round the city, and overthrew its walls by blowing on them (*bén-néfès*), the ramparts falling of their own accord, stone by stone. This legend recalls the Biblical account of the taking of Jericho, and there is another circumstance which shows how, under the name of Aly, lies hid the personality of Joshua. After his combat with the Kouffar of the City of Brass the day drew to an end, and the infidels were about to profit by the darkness to escape, when the Imam Aly cried out, addressing the sun, "Return, O blessed! return, O blessed!" (*Erdja'y ya mûbarèkè! Inthiny ya moubarèkè!*) Immediately, by the permission of God, the sun, which was in the west, and on the point of disappearing behind the mountain, placed itself once more in the east, in the place whence it had started, and since that time the mountain above which the sun was hanging at the moment of the miracle has been called *Dahrat eth-thiniyé* (the croup of the turning, from *inthana*, to turn, return). It is the low chain running at the foot of Mount Quarantania above the *Tawahîn es Soukkar*, which one passes, in going from Ain es Sultân to the *maqam*, on a point covered with little heaps of stones (*chawâhid*) raised by Mussulmans, who can see from this place Neby Mûsa.

As soon as the Imam Aly saw the sun return to the east, he cried to his servant Eblal (or Belal), who at this moment was on the mountain now called *Mouèddhèn Eblal*, to make the call for the morning prayer (*Edhân*), whence the name given latterly to the mountain (Place of the Call to Prayer by Eblal). Perhaps this name belongs to a group of the

Traditions relating to Joshua and the taking of Jericho.

The city of Brass, taken by Imam Aly.

tribe of the 'Abid called Belalat. The miracle having assured victory to Imam Aly, he exterminated all the infidels, and demolished the city from the foundations, the fugitives being entirely destroyed by wasps.

We easily observe in this simple legend the leading features of the story of the fall of Jericho and the victory of Joshua over the Amorites, only in consequence of the absolute want of historical perspective which belongs to popular stories, facts and personages the most widely separate are mixed up together. We remark as well a very pronounced tendency to localise details by attaching them in the most rudimentary etymological manner to the names of places. It is not, however, without interest to have collected on the very spot where the events took place these popular accounts which have preserved their memory.

Tell el  
Ithlé.

On Tuesday morning, while M. Lecomte was occupied in making a drawing of the plain of Jericho, taken from the Tell el Ain, we went with Lieutenant Conder to Tell el Ithlé, to which the story related above had drawn our attention. We remarked nothing striking. Lieut. Conder left us here to go and explore the *Tell el Mouffjir*. I wanted to examine the environs of *Tell el Ithlé*, but, unfortunately, my guide was a Riha man, extremely stupid, who could give no information whatever, and I was obliged to renounce the design. I regretted this exceedingly, for on my return to Jerusalem I saw on reading the guide of Liévin, and the dissertation of Zschokke, that not far from there was the probable site of Gilgal, now called *Tell el Jeldjoul*. I could have wished to verify this on the spot, but I immediately pointed out the fact to Lieut. Conder, who has just informed me by letter of the correctness of the information with which I furnished him. I am convinced that there would be interesting researches to be made in this place, the identification of which would determine *par contre-coup* the precise site of the different Jerichos.

Inscriptions  
at Riha.

From Tell el Ithlé I went to Riha, where my guide professed to have in his house an inscribed stone found at Tell el Qos; it was nothing more than a simple piece of marble with certain scratches made by a pick. I passed nearly an hour in examining stone by stone all the tumble-down houses in Jericho. This minute inspection resulted in nothing. I only saw the place where, three years ago, a fine monumental Latin inscription had been taken away. I took a squeeze of it then. It contained, in all probability, the name of the famous usurper Pescennius Niger.

Ancient  
Convent in  
the Wady  
Kelt.

The afternoon was devoted to visiting, with Mr. Drake and M. Lecomte, the convent of Deir el Kelt, situated in the wildest part of the wady of the same name, the plan of which had been taken a few days before by Lieut. Conder. I went there principally to take the squeeze of a Greek and Arabic inscription which Lieut. Conder had found and copied. In order to reach the place we followed on foot the aqueduct which descends the wady on the north side. The road was as bad as possible, and the heat considerable.

There is nothing very remarkable about the convent; the frescoes which decorate the interior of the church and the ruined chapel appear to belong to several periods. They are covered with *graffiti*, painted or engraved. The only detail which struck me was that the church having no orientation, on account of the direction of the rock to which it clings, the builders had to compensate for this infraction of the rules of religious architecture by placing sideways the window of the apse, of which the two sides (themselves oblique) form between them and with the apse itself, such angles that the mean axis of the window is directed exactly towards the east. Symmetry is thus unhesitatingly sacrificed to the exigencies of custom.

The inscription spoken of is over the entrance. It is bilingual, and probably of a late period. The Greek is exceedingly incorrect in orthography and in syntax. It is, besides, negligently carved, and very difficult to decipher.

Bilingual  
Inscription.

This is what I have read of it up to the present:—

+	ANΘEKEN	.	.	.	+	was dedicated
.	...	ΔΙΑΧΙΡΟC	.	.	.	by the hand
BPAXIMTOYCA	.	.	.	.	.	of Ibrahim and his
ΔΕΛΦΟΥΚΑΤΤΟΥC	.	.	.	.	.	brothers.
ΧΠ						

While the Arabic inscription reads as follows:—"This . . . has been built by Ibrahim and his brothers . . . Moussa from Jifné(?) . . . May God hold them in his mercy. And he said: Amen."

Perhaps the Arabic word which I cannot translate refers to the building of the gate itself. I have, however, in my hands a squeeze which will probably enable me to read more of it.

I forgot to add that I profited by the presence of our two workmen to disengage a part of the little ruined building which surrounds the fountain of Elisha. I distinguished very clearly an apse with a niche, which probably belonged to a little pagan temple consecrated to the goddess of the fountain. Unhappily the people of Riha made me discontinue the work for fear of spoiling the water.

#### IV.

I had read the first word of the Greek part of the inscription at Deir el Kelt (see above), ANΘEKEN, admitting an incorrectness in spelling, of which the rest of the inscription offers several examples. An attentive examination of the squeeze shows me that it should have been read ANEKENICΘH (for ἀνεκάνισθη), "has been repaired or rebuilt." This new reading, of which there is no doubt, changes the whole construction of the phrase, which otherwise appeared singularly confused. Evidently ΔΙΑ ΧΙΡΟC, "by the hand" (of Ibrahim), belongs to the verb, completing the predicate, while the group of letters between

The Greco-Arabic inscription at Deir el Kelt.

the two contain the noun which is the subject of the passive verb. This noun up to the present has resisted all my efforts to read, which is the more to be regretted, because it certainly names the building, or the part of the building, repaired. I think it was preceded by the feminine article *ἡ*: it begins with ΠΑ, followed apparently by a sign of abbreviation. It might have been *παλαια* (the ancient). In this case the true name would begin with the second line, Μ<sup>ο</sup>, which I am tempted to consider as an abbreviation for ΜΟΝΗ (monastery), a form much used, if I mistake not, in ecclesiastical inscriptions. "The old convent has been repaired by the hand of Ibrahim," &c.

The carver had first written ΚΑΙ ΤΟΤ ΑΔΕΛΦΟΤ ΑΤΟΤ correctly enough, save for the omission of the *τ* in *αυτου*; but he afterwards added two sigmas, so as to make it run *τους αδελφους αυτου*, choosing, apparently, to sacrifice grammar to truth, in order to perpetuate the plurality of Ibrahim's co-operators. The Arabic text speaks of several brothers.

As to the last line, which contains a religious invocation of some kind, I cannot yet make anything of it.

I found at Khan el Hathrour what seemed to me the fragment of a Roman milestone, brought, however, from some other place. Lieutenant Conder has pointed out to me that the old Roman road from Jericho diverged from the present road before Khan el Hathrour, and passed more to the south, and, besides, that the distances between Khan el Hathrour and the Dablûs el 'Abid is more than a mile.

I send you a copy of an inscribed stone presented to me by a man at Jerusalem on my arrival. It is a curious specimen of the manufacture of pretended inscriptions which has been carried on here for three years, and to which I have called attention on several occasions in Europe. The stone is a kind of Cornelian cut in the form of a cone: the inscription consists of four lines in Phœnician characters like those of the Moabite Stone, the engraving of which is alone sufficient to prove the forgery. The lapidary, for instance, makes his characters approach the Greek and Latin types:—the *He* is written like E, the *van* like a k, the *cap* like a C. This inscription has a certain advantage over its brethren, being invented by a man with some pretensions to knowledge, for it can really be translated without difficulty into sense. This fact proves that it comes from a different origin to the Shapira things. It reads, in Hebrew, thus—

אבר  
יהוה  
דוד  
בן

"The servant of Jehovah, David, King."

David's own seal, and for ten francs! Certainly far from dear, and the forger must be credited with great moderation.

Fragment of a  
Roman  
milestone.

Forged  
inscription  
in Hebrew  
Phœnician.

On the 16th of December I went for the first time to the Haram, in company with M. Lecomte and Lieutenant Conder. The visit was a brief one, but was not without results. I found in one of the little oratories which surround the esplanade of the Sakhra a Cufic inscription of the third century of the Hejira, which I intend to copy. A little farther on I remarked a beautiful old sarcophagus, ornamented with roses, and then we examined closely the curious semicircular arches in the upper part of the exterior wall of the Sakhra. They were brought to light on one of the sides which had been stripped during repairs of the covering-in tiles which concealed them. The existence of these arcades is a fact of great importance, and one which may lead to new conclusions as to the original form of the mosque; we must not, however, be in too great a hurry to deduce proofs as to this or that date. The arcades must be studied with the most minute care before we can determine their period with any precision. We propose to give our attention to it immediately, and to take a photograph, as soon as the weather will allow, of the side now exposed.

Visit to the  
Haram.

I do not think it out of place to communicate an observation which I made some time ago, and which I have not seen any notice of elsewhere.

Distinctive  
character  
of the stones  
cut by the  
Crusaders.

It has, I think, a certain value, because it leads to no less than an *almost absolutely certain diagnosis* of the stones cut by the Crusaders.

Criterion by  
which to  
recognise  
them on  
first inspection.

This distinction concerns not only the mediæval archæology of Palestine, but also, and almost to the same degree, the archæology of earlier times.

One knows already how little people agree respecting the age of several of the Palestine monuments; it is not rare to see contradictory theories on the subject of the same edifice, or the same part of an edifice, oscillate between the most diverse epochs, Hebrew, Jewish, Roman, Byzantine, Mediæval, Western, and even Arab.

Gothic,  
Saracen,  
and Western.

The reason of this is, that people confine themselves usually to the examination of *forms* and *styles*, and that nothing is more deceptive than this kind of evidence when other means of identification are not at one's disposal. I will cite but one example. One looks upon it as an established truth that every pointed arch with *normal* joints is *Arab*, and that every pointed arch with vertical joints is *western*.

This rule, elsewhere fixed, is frequently violated in Palestine, and will assuredly mislead those who would take it for an infallible guide.

The peculiarity which I now point out enables one to decide, stone by stone, what materials were worked into any edifice by the Crusaders.

As is already known, a great number of the blocks found in the constructions erected in Palestine by the Crusaders show masons' marks consisting of letters of the Latin alphabet, including various symbols, some of which are very characteristic (the fleur-de-lis, for example). I have collected some hundreds of examples in my notes. No possible doubt would exist if each stone showed these

incontestable signs, but unfortunately this is far from the case. But my course of observations enables me to supply their absence and to arrive at the following conclusion:—That I believe myself able, without too much boldness, to generalise as follows—"The stones bearing mediæval (Latin) letters have their exterior faces dressed, or rather scored, in a special manner, which of itself alone suffices to characterise them."

This surface dressing consists (on stones with plane surfaces) of oblique lines closely ranged, all in the same direction, done with a toothed instrument. The obliquity of the lines appears generally to be at an angle of  $40^{\circ}$  to  $45^{\circ}$ . This uniform line is particularly visible when the stones are illuminated by a side light. I have found it on a quantity of stones without masons' marks, but employed concurrently with signs on stones in perfectly homogeneous buildings.

Its presence is so specific that it has often led me to note masons' marks which would otherwise have escaped me, because it determines, *à priori*, the age of the stone, and warns me that, perhaps, a mason's mark is to be found.

I have noted the existence of this surface dressing on stones of all shapes and positions: blocks, in courses, in walls or pillars, voussiors of arches, and even in rebated blocks. It exists also on stones with carved surfaces placed vertically, shafts of columns, concave or convex blocks of apses, or circular walls.

But in this case the cuts are very slightly oblique, and approach perceptibly to the vertical which is the normal of the cylinder; when, on the contrary, the cylinder is disposed horizontally (horizontal mouldings) the lines of the cut are very nearly horizontal.

These facts are easily explained by the necessity of making the tool follow a rectilinear direction; if, for example, the same method had been followed as for plane surfaces, the tool would only have touched the curved surfaces perpendicularly to their normal, and would have produced marks only instead of lines. I have remarked another group of stones also dressed obliquely, but on which the cuts are replaced by a series of dotted lines. I have not yet studied this peculiarity sufficiently to say if these stones belong to the same epoch as the others.

So far I have not met with a single fact in contradiction to the broad rule which I think I am able to lay down as follows (restricting it, be it well understood to those parts of Palestine with which I am familiar):

All stones showing what I propose to call "the mediæval dressing" (*taille mediævale*) were worked in by the Crusaders.

There is no need, I think, to insist further on the advantages which may arise in a multitude of cases from an application of this rule, reposing as it does on the result of minute observation, so to speak, on what one may consider the "epidermis" of the blocks.

One knows also how much importance technical men attach to

this detail. "The nature of the dressing is one of the most certain means of recognising the date of the construction," says one of the most learned architects of our time, M. Viollet le Duc, in his *Dictionnaire Raisonné de l'Architecture Française*.

One of my first cares has been to commend these facts to the attention of M. Lecomte, whose professional competence in the matter is indispensable to me in order to determine with precision the instrument and the method, by the aid of which was obtained this characteristic dressing which appeared with the Crusaders, and which seems to have disappeared with them.

I hope very shortly to send the Committee some photographs, drawings, and squeezes, with which to supply to archaeologists comparative graphic specimens of the different sorts of "dressing" employed at different epochs in Palestine, and to place in their hands a convenient and certain means of distinguishing at least one of these periods.

With the sanction of the Committee I would collect original specimens of the stones themselves, to be submitted to men of the profession, and be judged definitely by them. This study may be peculiarly fruitful in what relates to the blocks employed in the heterogeneous enclosure of the Haram, and by analogous observation it may perhaps establish a clear distinction, hitherto unknown, between the so-called Herodian and Solomonic materials.

Besides the practical and local application which I have indicated, this fact which I have pointed out concerning the "mediæval dressing" is capable of furnishing a new element in the history of the development of Western architecture itself. It is known that the dressings vary in the West according to the district and period. The period being known, it would perhaps be easy to determine the original European region of the method in question, and, in consequence, to find out to what school the builders belonged who were employed by the Crusaders.

It will not be forgotten that it was precisely in the twelfth century that (in France, at least) the different styles of dressing reached a great degree of perfection. Some authors are even tempted to attribute this result to the influence of Græco-Roman art in Syria. I leave it to the specialist to find out whether the point I raise is contrary to this explanation or in its favour.

My researches with regard to the real site of Scopus have incidentally led to a little "find" of some interest. In the course of my work I have had occasion to explore a sepulchral cave cut in the mountain situated to the north of the Mount of Olives, near the place where the word *Scopus* is written on the Ordnance Survey map (scale 1-10,000). I should remark, by the way, that this mountain is called by the fellahin of the locality, *Ez zè 'weyqa*. The south-eastern brow to the north of the road leading to 'Anāta bears the name of *El Maïtāla*, which means, literally, *an elevated place whence one can see*—an observatory; a word which is the exact equivalent of the Greek *Scopos*.

Excavation  
in a sepulchral cave  
near the  
Mount of  
Olives.

Should we place Scopus there, or at the other point, the northern extremity, of this long chain on the Roman road going to Nablous, at the point marked on the Ordnance Survey map  $\triangle$  2686, 3. ? That point has the very characteristic name, which I was the first to point out—(see Burton and Drake's "Unexplored Syria," vol. ii.)—of *Chéréfé* or *Mechārîf*—*observatory, place whence one can see*, which is the exact translation of *Scopus*. Perhaps the true Scopus is neither the one nor the other, but another part of this chain, extending from the Mount of Olives to the Nablous road, whose summits bear different names, not yet marked. As soon as the present bad weather is over I propose to explore this chain very carefully from the onomastic point of view. *A priori*, the site which would appear best to answer to the data of the question, is the mamelon on which, in the Ordnance Survey map, is marked the word *Mount* (preceding the word *Scopus*). The fellahin call it, if I remember rightly, *Khūl't el 'adjoūz*. This is the highest point of the range ; it is, besides, at the precise distance mentioned by Josephus. We shall see if any local tradition confirms this hypothesis rather than any other.\*

But to return to my sepulchre. It is composed of three rooms, communicating with each other by passages, pierced in the direction of the axis of the doorway. I penetrated into the first by a kind of cistern-mouth, opened in the roof to about three or four metres of earth. The normal entrance is entirely masked from without by accumulations of earth ; from within is seen the door, closed by a great slab, still in its place. The first chamber contains nine loculi, perpendicular to the walls, and distributed three by three on three sides ; the second contains other loculi similar, less carefully cut ; as to the third, I have only been able to penetrate into it with great difficulty, for it had been almost entirely filled up with water by the rains. I remarked in the first chamber, half filled with earth, the end of a bench cut in the rock, which would run all round.

Many pieces of sarcophagi in soft limestone, exactly like those of which I have often spoken before, both in material and form, were scattered over the ground, with a quantity of bones and pieces of pottery. Evidently the sepulchre has been violated, but the violaters did not take the trouble to carry away what they broke. I had all this *débris* carefully collected, and minutely examined the loculi in the first chamber. My search produced results, and I had to send to the village

\* Mr. Conder has just shown me a note on the position of Scopus, in which he considers the question from a practical and military point of view. These considerations would tend to justify my first hypothesis, which consisted (see above) in identifying Scopus, properly called, with *el Mechārîf*. Two points may be remarked—(1) the existence of a great well at *el Mechārîf* ; (2) that of a large number of *méchāhid*, little heaps of stones placed there by the Mussulmans because, they say, *it is the point from which Jerusalem and the mosque of the Sakhra are first observed in coming from Nablous*. Perhaps the word *Scopus* embraced the whole of the chain stretching from the *Mechārîf* to the Mount of Olives (see p. 111).

of Djebel et Tour for an ass to carry away my archaeological booty. The most important pieces are : three fragments of Hebrew inscriptions on pieces of sarcophagi ; a lachrymatory in glass, very well preserved, and of an elegant form ; a little lamp in terra-cotta, unbroken (without Christian symbols) ; a little instrument in bronze, forming a twig, finely ornamented, having at one end a bud and at the other the commencement of a narrow spatula ; two large nails ; a hundred nail-heads, oxydised, seeming to indicate the presence of wooden coffins ; a great many fragments of vases and lamps in terra-cotta ; and pieces of sarcophagi ornamented with roses. I have already found among the latter fragments the materials for three complete sarcophagi. I collected, besides bones, which may be of use to an anthropologist, fragments of skulls, jawbones with teeth, &c. Lastly, which might be the most important of all, I found in a loculus an antique coin in bronze ; unfortunately it is so much defaced that it is probably impossible to identify it, and so to deduce a minimum limit for the date of the inhumations and the inscriptions. Other considerations, already published, make me place this about the first century of the Christian era.

These unlooked-for results inspired a very strong desire to push my researches farther. I could have wished to examine the third chamber, which might have given me new texts or other objects—even to have cleared away the entrance so as to study the mode of closing the tomb. The proprietor of the ground, however, would not consent, and I was obliged to put off my work till another day. I believe, however, that I shall eventually overcome his scruples without very great expense.

Here are the three fragments of inscriptions :—

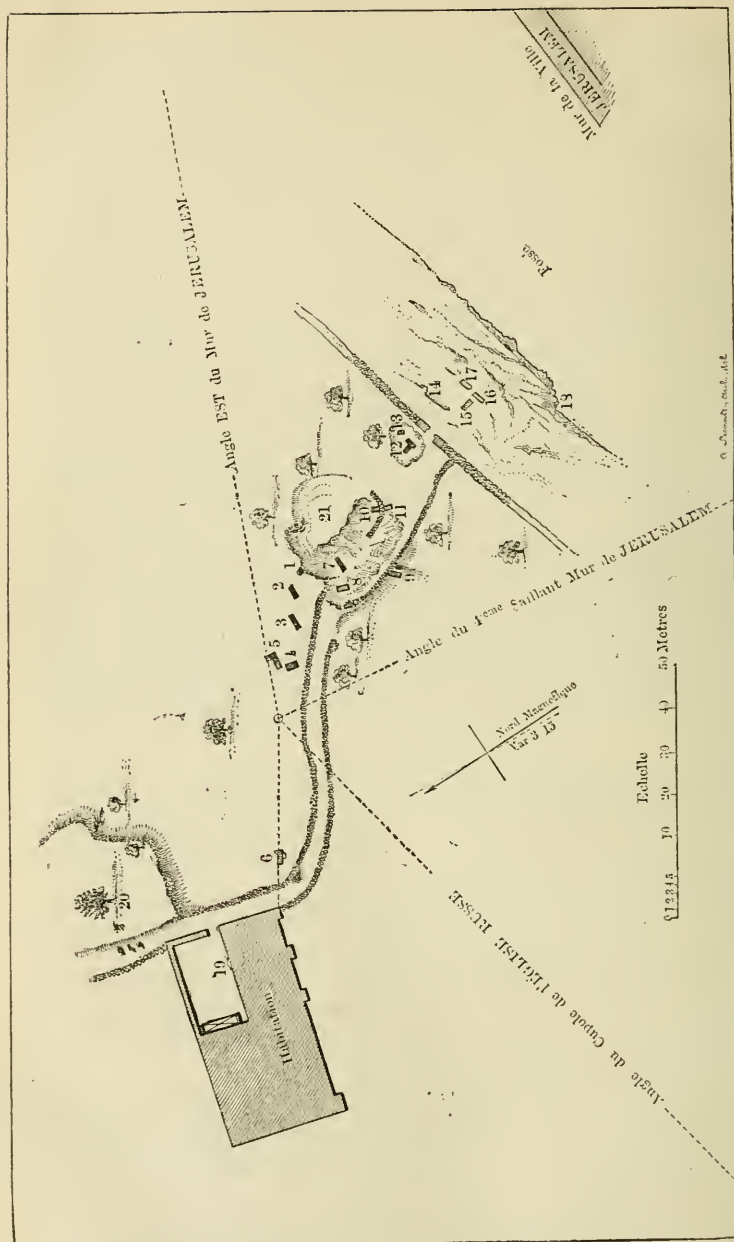
(1) A name beginning with . . . יהו, followed by בר, *son of*, and traces of letters belonging to the patronymic ; the letters which follow . . . יהו are not very distinct ; the last is certainly a ך, the two others appear to be a *nun* and a *tau*,—*Jehonathan*.

(2) There are four characters very clear, of which the two last, without doubt, are *lamed* and *shin* ; as to the first or two first I do not know if it is a *koph* or a *samech*, followed by another letter.

(3) Two characters, the first being certainly a *pe*, followed by a letter mutilated by the fracture, but in which I see quite clearly the elements of a *lamed* ; but the Hebrew names beginning with these two letters are too numerous for me to risk a restoration.

I have just observed a group of sepulchres cut in the rock, which, so far as I know, have never been noticed. They are all in a large field lying between the moat north-east of Jerusalem and the magnificent pine standing close to a winepress worked by Mohammedans ; this place is generally known under the name of *Kerm ech-cheikh*. These sepulchres are interesting from a double point of view : (1) in regard to their form, they belong to the horizontal system of rock sepulture ; the entrance consists of a rectangular trench about 1m·60. by 0m·45,

Tombs cut  
in the rock  
in the  
north-east,  
and quite  
close to  
Jerusalem.



PLAN OF THE TOMBS AT NORTH-EAST ANGLE OF THE CITY WALL.

and more than a metre in depth; at the end a rebate cut in the rock appears to have been destined to receive and support a slab closing the tomb properly so called, placed in a sepulchral chamber situated below. So far as I have been able to judge of the exterior, these chambers are excavated in a vaulted form: they appear to have a considerable extent, and the proprietor of the ground has assured me that many of them communicate. I have not yet been able to examine further, because they are partly inundated by the late rains. There have been found in them, I am told by the proprietor, quantities of bones, broken pottery, "boxes" in soft stone, and an ear-ring in gold, which he promised to show me.

(2) The position of the sepulchres may be of importance for the question, *adhuc sub jussu*, of the third wall of Jerusalem. They extend along a line of about 125 degrees, starting from the south-east angle of the building, marked close to the great pine on the Ordnance Survey map, and running to the road which passes along the moat of the city at the north-east. We counted a dozen openings of tombs, and the last are hardly 40 metres from the moat of the city. If the examination of these tombs, that we are about to make without delay, leads us to assign them an ancient date, it is clear that the existence of a cemetery of a certain date may furnish us proofs for or against the existence of a third wall to the north of this point.

The proprietor of the ground told me that they had found another great tomb cut in the rock under the wall north-east of the present building (at the south side of the little court margined on the house on the Ordnance Survey map). It appears, besides, that a tradition assigns to the *Kerm ech-cheikh* a *maqam* of *El Khadher* (the prophet Elijah). I think that there must exist about here many tombs of the same kind. We know that it is very near this point that the partisans of the identity of the tomb of Agrippa with the modern northern wall place the Fuller's monument spoken of by Josephus.

NOTE.—Accompanying this report were drawings and photographs, including:—

- (1) The stripped side of the Kubbet es Sakhra, showing the newly discovered balustrade, with round arches. (Photo.)
- (2) The idol lately found at Gezer. (Photo.) A drawing of this also arrived from Mr. Drake.
- (3) An ancient sarcophagus, now placed in the Haram. (Photo.)
- (4) Bilingual inscription from the Deir el Kelt. See p. 89. (Photo.)
- (5) Lamp, lachrymatory, &c. (Photo.)

## V.

JERUSALEM, *Jan. 22, 1874.*

A slight illness, which kept me in bed for eight days, and the bad weather, which has rendered outdoor work impossible, have together made the last fortnight one of small profit. I have, however, been able to utilise this forced inaction in studying by text certain questions which should be the object of future research.

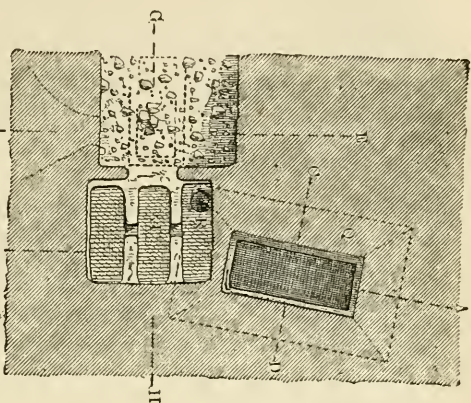
Great  
cavern in  
the side of  
Mount Zion.

While exploring, some days before I fell ill, that part of Mount Zion where, according to my calculations, the tombs of the kings of Judah should be, I remarked, about 280 English feet east of the great mulberry-tree of Silwan, situated at the south-east angle of the "Old Pool" of the O. S. map, a curious great cavern. The entrance is very narrow, but the cave, which appears to be in part cut by the hand of man, enlarges considerably, and plunges almost horizontally into the side of the hill. At the end a pillar, rudely cut, supports the roof of the cavern, and I think I saw openings to other galleries. Unfortunately, the interior is in great part filled with earth, so that at certain points one is obliged to creep in order to pass between the ground and the roof. I undertook a small excavation in order to ascertain the extent and the direction of this cavern; above all, its extent. I cut a narrow trench of no great depth, with the intention of pushing it as far as the cave extends, intending later on to cut deeper in order to reach the original bottom. We were already fifteen metres from the entrance when my illness put a stop to the works. The excavation has, up to the present, produced (1) considerable quantities of bones, which appear to have been thrown in pell-mell, as into a charnel-house; (2) bits of broken pottery by the thousand, some of which appear very ancient; (3) a large number of fragments of great stone vessels, worked all round in flutings and mouldings; (4) and lastly, one stone weight. I have brought away all the things indiscriminately, and we have taken out and put aside for photographing some as being worthy of attention. It is evident that all this rubbish has been designedly accumulated in the cavern. I believe that it would be desirable to pursue this research, which may be managed within the modest means at my disposal, as I only employ two or three workmen at a time. I hope that, as we dig deeper down, the fragments will become more ancient, and that we may find among them some with characters—stamped jar-handles and the like. Besides, it seems to me very curious to know where this subterranean passage leads. Without assuming that it may have a connection with the Tombs of the Kings, we may suppose that it will teach us something on the topography of Zion.

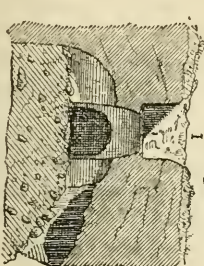
Tombs cut  
in the rock  
north-east  
of Jeru-  
salem.

As soon as I could walk, after my illness, I paid another visit to the very curious tombs of which I spoke in my last report. We have, with M. Lecomte, drawn up an exact plan of the ground where they lie, so as to give their position relatively to the city. We have carefully noted the orientation, which differs with each. Within the plot of

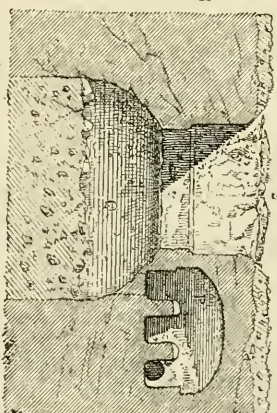
Plan at N N'



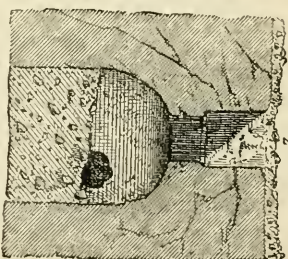
Section through E F



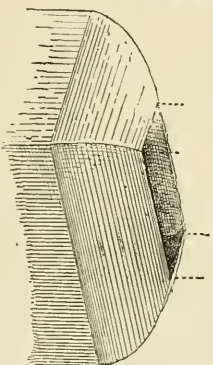
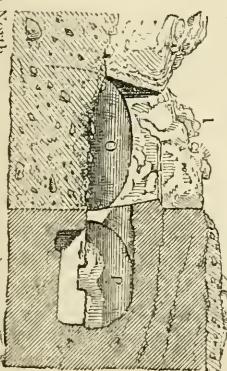
Section through A B



Section through C D

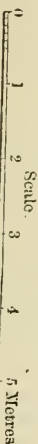


Section through G H



View of H

Map to North



ground which is bounded by a dry stone wall bordering the road we counted 13 openings, some completely open, some partially filled with earth, others which seem to have been commenced and left unfinished. Opposite the gate of the ground, on the road itself, we also remarked traces in the scarp of the rock of three rectangular graves (belonging probably to the same system) and of a great wall. On the counterscarp of the city moat there exists one other grave, which might belong to the same group.

We have not yet the time to study completely the interior of these tombs. Up to the present we have only penetrated into those marked I. and II. on the general plan. The plan and the detailed sections will be found in a special drawing. We entered by the opening No. I., half destroyed by stonecutters, who here quarry the rock, and will very soon destroy these remarkable monuments.

It is difficult to give, in a simple description, any idea of the arrangement of these tombs, which (so far as we have seen) are composed of a chamber oblong in plan, vaulted in the manner known technically as "*arc de cloître*," or "*coved vault*," formed by the direct penetration of two cylinders; whilst the vault known as "*route d'arêtes*," (the plain *groined* vault), is obtained by the *intersection* of two cylinders. Architects are well aware that the first-named system is older than the second.

M. Lecomte has added to his plan a little sketch giving the geometrical perspective of this vault. Below the springing of the vaults are vertical walls; at its summit is the opening of the grave, communicating with the exterior, and of this the bottom seems to have been closed by a big block resting on a rebate cut in the rock.

The first chamber (O) which we entered, almost entirely filled with earth, communicated by a small round opening (R) with a second chamber (P). This is very small, and contains three loculi cut trough fashion and parallel. A hole pierced by the Arabs in one of the angles permits the visitor to penetrate to an adjoining chamber (Q), which is only separated from its neighbour by a very thin wall of rock.

This third chamber is filled with earth nearly to the springing of the vault, so that we could not discover the funereal arrangement. At the top is the rectangular opening marked in the general plan (under No. 2), by which this chamber opens directly to the exterior.

We visit a very curious tomb, in which, to the left on entering, one sees an "*arcosolinum*"<sup>(2)</sup> covering in a trough, rounded at one end, square at the other: the rounded end was evidently that in which the head was, so that the feet were turned towards the entrance. A second chamber, situated in the axis of the other, is ended by a "*hemicycle*" (or semicircular apse). I have never until now met with this singular arrangement; we shall see presently the plan and section of this sepulchre, which is unique in its way.

We shall return soon to the exploration of the other tombs, which are at present filled with mud and water. I can at present give no

opinion whatever on the exact age of these tombs, and my hesitation is increased by the importance of the question connected with it, and which I indicated in my last report, viz., the extension of ancient Jerusalem to the north of this point. I will only observe for the moment that in building the Latin Patriarchate there were found inside the present city, about 250 metres west of the Church of the Holy Sepulchre, tombs with sarcophagi identical with those of which I have many times spoken, and a number of lachrymatory glass vases, like those picked up by M. de Sauley at the entrance of the Gobour el Molouk, and to that found by myself in a sepulchral cave, with *fragments of Hebrew inscriptions*.

I think it would be of some interest to attempt an excavation on this spot to try to clear out one of the tombs not yet violated; perhaps one might come across something of an epigraphic character, or at least some objects which might help us to determine the period to which they belong.

One may compare the interior arrangement of the second chamber with that of a tomb described by Lieut. Conder (*Quarterly Statement*, 1873, p. 22), which is close to the excavation marked No. 81 on the Ordnance Survey map of Jerusalem.\* A little distance north of the house of the Kerm ech Sheykh is an old Arab cemetery, which appears to have been long abandoned.

Near the point where the curve of the level (2479 of the Ordnance Survey map) meets the counterscarp† of the city moat (at the eastern end of the curve) debouches an aqueduct, which appears to have come from the north and to have been cut by the moat. It would perhaps be worth while to ascertain its origin. I do not know whether it has yet been pointed out.

Some metres east of this point the counterscarp cut in the rock turns abruptly at a right angle, then resumes its original direction for 25 metres, and makes another rectangular bend. This redan does not appear to me necessitated by any strategic reasons, for it corresponds with no salient of the wall. May this not be, perhaps, an ancient little "birket," of rectangular shape, which may have been cut across, and almost entirely destroyed by the moat. In that case the aqueduct and pool, if aqueduct and pool they were, would make a part of the water-system of the north-east region, at present so obscure. I confine myself for the present to the simple suggestion.

Descending the Wady en Nar, below the Bir Eyub, on arriving at Ain el Loz, ten minutes' walk, a small wady is seen on the right, which comes from the west and drains into the Ain el Loz. This wady, which is tolerably broad but very short, is marked, but without a name, on some of the maps. The men of Siloam call it Wādy āsōul, which we must resolve into Wād + yāsōul, not into Wādy + āsōul; for other

Possible remains of ancient piscina cut in the rock.

Yasoul (perhaps the Azal of Zech. xiv. 5)

\* It is on the right-hand of the great north road, a short distance from the city.

† Close to the Damascus Gate.

peasants have pointed it out to me as Ehèb yāsoul and Ardh yāsoul. In any case, the word is certainly written with the *sad* and not the *sin*, so that it corresponds exactly, satisfying all the rules of etymology, with the Hebrew אכל, which occurs in the difficult and famous passage of Zechariah xiv. 5: "And ye shall flee to the valley of the mountains (Ge-harai); for the valley of the mountains shall reach unto Azal: yea, ye shall flee, like as ye fled from before the earthquake in the days of Uzziah king of Judah: and the Lord my God shall come, and all the saints with thee." Schwarz in an ingenious note has proposed to see in Geharai the *Erôgé* of Josephus, mentioned by him *à propos* of the earthquake in the reign of Uzziah.\* As for Azal, the greater number of commentators agree in considering it a place near Jerusalem; † some have even identified it with the Beth-ezel of Micah (i. 11): "The inhabitant of Zaanan came not forth in the mourning of Beth-ezel." May it be Yasûl? Whatever it be, this little valley presents points of great interest. In the south side have been excavated several sepulchral caves. The bottom of the valley is full of broken pottery, cubes of mosaic work, certain indications that the place has been at some time inhabited. On the north side, half-way up, I remarked in a plot of ground belonging to a Silwan man and called *Kerm Gamar* (the enclosure of the moon) cisterns, ruins, the base and the capital of a column, a fragment of lintel with a cross, and an extremely elegant lid of a sarcophagus in hard stone. You will find enclosed a sketch of Lecomte's giving these interesting remains. I have, besides, acquired of the proprietor of the ground two out of twenty lamps found by him in a sepulchral cave cut in this *Kerm*: the one is of elegant form with ornaments finely executed; the other bears a Greek inscription that I have not yet been able to decipher.

Objects  
found in a  
sepulchre at  
Beit Djala.

I have just seen at the Latin Patriarchate a very interesting collection of objects taken from a tomb opened in a plot of ground of Beit Dejala belonging to this religious establishment. Two very fine *alabastra*, a great deal of terra-cotta with a star drawn in the centre, a quantity of phials in glass of various forms and sizes (double, with blue enamel, &c.), many lamps in terra-cotta ornamented with crosses of different shape—one with this inscription—ΘΥ ΘΕΟΤΟΚΟΡ (of the virgin). I will photograph the entire group.

Fragments  
of a Greek  
inscription  
found at the  
Damascus  
gate.

I have seen in the hands of a Mussulman, and I hope to get it myself for a trifle, a fragment of a Greek inscription found not far from the

\* "In the meantime a great earthquake shook the ground, and a rent was made in the temple, and the bright rays of the sun shone through it, and fell upon the king's face, insomuch that the leprosy seized upon him immediately: and before the city at a place called Eroge, half the mountain broke away from the rest on the west, and rolled itself four furlongs, and stood still at the east mountain till the roads, as well as the king's gardens, were spoiled by the obstruction."—Josephus, *Antiq.*, ix. 10. 4.

† Schwarz places it El Azariyeh, the traditional Bethany.

gate of Damascus (north of it), perhaps near the tombs pointed out by Lieutenant Conder, of which I speak above. The characters are clear, distinct, and deeply marked; they appear to be of the Byzantine period. I give a transcript, though not an exact drawing :—

ΞΙΜΩ

NATT

EPOI

Could this fragment be connected in any way with the Church of St. Stephen, which was near here?

I have gathered from the mouth of a Mussulman of Jerusalem a rather curious legend on the Wady Kelt and its aqueducts. Although his narrative is deficient in local accuracy, and I shall have to verify it on the spot, it will not be inopportune to note it here.

Legend of  
Moses and  
the Wady  
Kelt.

A Christian woman caused an aqueduct to be constructed in the Wady Kelt, in order to irrigate the plain of Jericho. Then came Moses (Sidna Mousa), who wanted to do the same. The Christian woman having refused to help the labour of Moses in allowing him to run his aqueduct over a certain place, a challenge followed on either side as to who should first finish the work. Then Moses took his rod and traced on the ground with the end of it a road which the water followed immediately, running into the *Birket Mûsa*, which is at the foot of Beit Djaber. The remarkable point of the legend is that it gives us, in all probability, the real origin of the name Wady Kelt; it was, in fact, to irrigate the plain (*minchan yigallit*) that the rival constructors wished to make their aqueducts. Now *yigallit* is the second form of a verb *galud*, which has not the sense of irrigating, filling a reservoir, at all: it is the verb *galat* which has this meaning. The change of the final *d* for a *t* would be the result of rapid pronunciation. And just as this is *yigallit* for *yigallid*, so then might be the Wady *Gelt* (kelt) for the Wady *Geld*. On this theory the Wady Geld, Gelt, or Kelt, signifies the valley of irrigation, a name which is explained by the presence of the three aqueducts which we find there.

The same man told me that there was in the same valley a spring whose name he did not know, bewitched with the black man and the white (*marsoûd 'ala 'l-'abed ou'l-horr*).\* The water of the spring at one moment wells up abundantly and at the next disappears, so that often you have not the time to drink. The reason of this intermittence is that the white man and the negro are waging a perpetual battle; when the negro has the better the water comes up, when the white is conqueror the water disappears.

Legend  
of an  
enchanted  
fountain in  
the Wady  
Kelt.

During the heavy winter rains there are formed, close to the gardens of Jaffa and to the west, real lakes of considerable extent. The largest of these marshy ponds lies south of the road, and is called by the name of Bassa, a word applied in other parts of Syria to similar pools. As for the signification of the word in Arabic, nothing more

The Bassa  
of Jaffa.

\* "Horr" literally means *freeman*; "abed" *slave*.

satisfactory can be found than that of *firebrand*, *lighted wood*. The same word, on the other hand, is found in the Bible (Bissa, בִּסָּה) used to signify a *lake* or *marsh*. "Can," asks Bildad (Job viii. 11), "the rush grow up without mire? can the flag grow up without water?" (בְּלֹא־מִיֶּנֶה). And further on (Job xl. 21) " (Behemoth) lieth under the shady trees, in the covert of the reed and *fens*." And the word is also found in Ezekiel xlvii. 11, "The miry places thereof and the marshes thereof shall not be healed, they shall be given to salt." Commentators and lexicographers (cf. Gesenius and Fürst) derive this Aramaic word from a hypothetical root בִּסָּה, to which, relying on the Arabic *budhalha*, they give the meaning of "*paulatim fluxit et emanavit aqua*." The supposition appears to me entirely gratuitous; in fact, the existence of the *Bassa* at Jaffa and other places proves that *Bassa*, in the sense of pond, is allied with the Arabic *bassa*, to *shine*. The origin of the word shows that the meaning "pond" is connected with shining or glittering in the sun. It is exactly the same idea which has given the similar word its meaning of *firebrand*. A similar reasoning could be extended to the word *ain*, which in Hebrew and Arabic has the double meaning of *an eye* and a *fountain*, surely far enough removed from each other. The meaning in both cases has been borrowed from one and the same primitive sense.

Head of  
statue and  
figure of  
Venus.

I have just acquired of an Arab mason two curious objects found by him some years since in repairing a sewer and some foundation work under the Mehkeme. The first is a head, rudely carved in limestone, and of a very curious appearance. You might be tempted at times to ascribe an Egyptian origin to it, but the execution is too rude for me to assign any period to it.

The other object is a little figure in lead of about five centimètres in height, representing a woman nude to the girdle, the lower part of the body draped, the arms folded and raised above the head, an attitude which reminds one of certain statues of Venus. The statuette has been a good deal injured, but the outlines are still elegant, and the whole figure is in conformity with the rules of ancient art. According to ecclesiastical tradition there was, as we know, a temple in which the Church of the Holy Sepulchre now stands, consecrated to Venus, and the mysteries of Adonis were celebrated in the Grotto of the Nativity at Bethlehem. Are we to see in this statuette a specimen of the Venus of Ælia Capitolina? You shall have drawings of these two things next week.

## VI.

JERUSALEM, *February 8th*, 1874.

The bad weather which prevails at present, with rain, snow, and hurricane, has prevented the carrying out of my plans, and has confined our operations to a few intermittent labours, interrupted at every moment,

and resumed whenever the weather permits. The effect of the interruptions will be clearly noticeable in the results which I forward you.

The Committee will probably remember that among my proposed researches I pointed out certain rock-cut chambers immediately beside the rock in the Ecce Homo Church. The presence, previously unsuspected, of these excavations in the interior of Jerusalem, and in a place which is particularly interesting as regards the topography of the Holy City, is a fact of great importance, and one of my first cares was to visit the chambers with M. Lecomte, in order to get an exact plan of them. The work, which it was desirable should be accurate, was rendered difficult by the complication of modern houses placed at different levels, and leaning on the flank of Bezetha, so as to mask the general direction and particular aspect. We were therefore obliged to give several days to the work. We met with an excellent reception from the residents of the houses—Arabs of Greek religion—and every facility for accomplishing our task. The work was nearly finished, and there only remained a last visit to be made to take certain measurements, when an unforeseen accident put an end to our examinations. The very day when we were to return, an hour before our arrival, the house, an old tumbledown ruin, saturated with the heavy rains, suddenly fell down. We found nothing but a mountain of *débris*, completely barring the Via Dolorosa. We had had a narrow escape. An hour later and we should have been in the cellars of the house, and in all probability there would have been an end of all our archaeological labours. Fortunately the house was uninhabited. The worthy people next door escaped with no worse injury than a horrible fright. They had, however, to decamp immediately, their own house appearing desirous of following its neighbour's example, so that it was judged expedient to anticipate its wish and pull it down at once. This unfortunate contretemps leaves us with an unfinished plan on our hands, and I fear they will pile up the fallen stones in such a way as to hinder access to the chambers. Anyhow, the essential part of the work is done, and the plan, such as it is, very minute, so far as it goes, gives a good idea of the place.

Rock and  
rock-cut  
chambers  
west of the  
Ecce Homo  
Church.

The following notes will serve to some extent to describe what we found:—

You know the escarpment of rock (O. S., No. 72) in the Ecce Homo Church, forming, with a length of several metres, part of the northern wall of the church. The escarpment suddenly stops, interrupted by the houses which rise west of the church, and which line the Via Dolorosa as far as the garden of the Austrian Hospice. It is behind these houses (there are three) that I found and marked the rock forming a continuation to this escarpment, about 25 metres in length. Proceeding from east to west, in the first house is observed a piece of rock in nearly the same line as the escarpment of the church. The wall makes almost directly an obtuse-angled bend to the north-west, and gets buried among buildings where it cannot be followed. The presence of the rock up to this point is noted by Tobler ("Dritte Wanderung," p. 249). Passing

into the next house, we find the rock with its general direction to the west (slightly sonthing), with a length of about 12 metres. Arrived at this point, the rock offers a peculiarity of double interest to the archæologist and topographer. In the vertical wall is cut a corridor, winding at first, which plunges into the masonry and takes a north-west direction. It divides in two my first chamber, irregularly cut in the living rock, with flat ceiling, flanked right and left by two broad stone benches, measuring nearly 2·20 by 2·40 metres. After this it immediately abuts on a second chamber also cut in the rock about 3 by 3 metres, with irregular angles. A space opening out in the wall north of this chamber loses itself in the earth and masonry. In the last wall is indicated a doorway whose framework has given way; the upper part alone is pierced, and gives access to a little alcove, which seems an unfinished chamber. In the south wall two doors have been opened similarly with fallen in framework, one of which communicates with the first chamber already described, and the other debouches into a third chamber cut in the rock, with a complicated arrangement of benches. This is not all. On the lower floor—the cellar, so to speak, of the house—the same wall of rock is perceived descending below the actual level of the street. A broad bay forming a vestibule is cut in it, and gives access to a group of chambers also cut in the rock, extending in a north-west direction under the chambers above, with which they communicate by means of a hole.

Lastly, in the third house near this, the rock is found again, at the end of the lower caves or chambers; it has been cut in the same way, and appears to have been cloven by an earthquake. Immediately beyond is the partition wall separating this last house from the garden of the Austrian Hospice.

The exploration of these lower regions was not by any means easy or pleasant, on account of the mass of filth and rubbish piled up nearly to the roof in the rock-cut chambers, over which we had to clamber and creep; one room in which we were obliged to remain several hours was a mere receptacle of sewage, though fortunately disused for some time. However, temporary uneasiness is forgotten in thinking how nearly this wretched place was becoming our tomb.

Cisterns made at different points along this line of the rock have been sounded by us, and have given depths which show that the rock extends several metres below the level at which it ceases to be visible. This line is at a mean distance of about nine metres at the back and north of the Via Dolorosa. It is more than probable that it is directly connected with the rock which was observed in the construction of the Austrian Hospice, at the north-east angle of the actual building. There also is found a rock-cut chamber which Tobler ("*Dritte Wanderung*," pp. 244, 245) is tempted to consider as a stable of great antiquity. It is difficult for one to pronounce on the destination of this chamber, now transformed into a cistern and consequently inaccessible; but I am sure, and M. Lecomte entirely agrees with me, that the

chambers visited and noted by us have not been cut for any such purpose as a stable; the only doubt is whether to call them chambers for the living or for the dead. The latter destination appears much more probable, and in this case it is unnecessary to point out that sepulchres cut in a place situated more than 250 metres south of the north wall of the present city, and at a few metres only from the town of Antonia, must necessarily go back to a remote antiquity, and bring us to the time of the Jebusites, or at least to a period which precedes the reign of Herod Agrippa.

The people of the house reported to us that, according to an ancient tradition, there was formerly in one of the higher chambers into which there is an entrance by the passage described above, a chapel dedicated to St. John the Baptist (*Mar Hanna el m'a moultāny*). I do not know what foundation this legend may have. It is not impossible that at some time or other one of these chambers was converted into a little chapel; if so, the little alcove spoken of above would certainly serve as a small apse. It appears that some years ago ancient coins were found in the square opening cut at the end of the second chamber.

Ancient chapel of St. John the Baptist.

I have ascertained the existence, at about 110 metres north-west of the ancient tank, No. 81 of the O. Survey, and west of the great northern road, of two tomb openings cut in the rock, apparently belonging to the same system as the sepulchres which we found near the Kerm-ech-cheikh (see Report No. V.).

Ancient tomb near the ash heaps.

The excavation on Mount Zion (see preceding Report) is going on. We have reached the end of the gallery, and the men are now cutting down to the rock as they work back to the entrance. We keep on finding an incredible quantity of fragments of stone vessels in all shapes and sizes, together with certain other objects, among them spur rowels in hard stone, and a truncated cone in stone worked all round, which ought to be of very ancient date, judging by the calcareous deposit which adheres to one side. There is another stone object also representing a truncated cone. Up to the present, no trace of inscriptions, if we except a plain cross + on a jar handle.

Excavation on Mount Zion.

We profited by a little clearing up in the weather during the last few days to make an excursion to Chofat. We examined the village attentively, and remarked hardly anything old in the buildings. The only observations worth being noted are the following.

Chofat (Shafat).

We penetrate into a Mussulman's house to examine what the people call El Kénisè (the Church), and find in the midst of suffocating smoke, which nearly blinds us, a piece of wall with two windows in *ogive* of fairly good workmanship, looking east; no trace of an apse; the dressing of the stone does not appear of Crusading date. Above, on a terrace, a chimney in stone reminding one of that which I pointed out at Neby Chamouil. There is no spring in the village, nor in the neighbourhood. The wely of the place is called Sultan Ibrahim. The old name of Chofat was Alaïkon. I was also told of *Deir el Mahrouy*, the burned convent.

El Kénisè.

The name of Alaïkon is strange, and I do not see what its origin could have been. It was given me by a woman, the accuracy of whose information I have since proved. I have often remarked in Palestine that the women are much more archaic, so to speak, than the men, in manners, language, conversation, recollection, and costume. I have often been able to get information from them that I should have vainly asked the men.

The inhabitants of Chofat are very savage and mistrustful. I had at first all the trouble in the world to get them to answer any questions. The woman who gave me the name of Alaïkon had hardly pronounced it when her husband ordered her to be silent, and abused her in round terms for revealing the name to a stranger. Some carried their ill-temper so far as insolence. One, whose name I asked, informed me with a grin that he was called Khobez (bread). I replied that I was named Tounm (mouth), and was quite ready to make a mouthful of him. Bringing them thus to their senses, we so far succeeded in parting friends that the fellah whose house we had visited actually refused to take any *bakhechich*!

According to a legend of the country, evidently of Christian origin, there was formerly at Chofat a king named *Yächüfät*, of whom mention is made in the *Tora* (Bible). It was he who gave his name to the place. It is not necessary to explain that this second-hand tradition has not even the advantage of being based on any etymological analogy, for the Hebrew name of Jehoshaphat does not contain the *ain* which exists in the word Cho'fät. Perhaps the proximity of the Valley of Jehoshaphat has had something to do with this made-up tradition.

A boy of the village told me of a cavern into which he had entered while running after a porcupine, and where he had found several *sandidiy* (sarcophagi) of stone with bones in them. We immediately went to the place, which is about twenty metres from the village, in the direction of the Russian buildings. After examining it I decided upon setting four or five men at work to dig and clear out the entrance of the tomb. The next day I returned, and found that the men had cleared out for several metres in length the tunnel made by the porcupine in order to get at the tomb which he had chosen for domicile. I crept into this narrow passage, along which one had to crawl at full length. About the middle I had to turn, keeping the same position, and at one time I thought that I could neither advance nor recede. At last I succeeded in dragging myself to the door of the chamber, and got in. Here I found nine *loculi*, in the form of ovens, disposed three by three in each of the three walls. At the left of the entrance, half buried in the ground which filled up the chamber and in places nearly touched the roof, I found a sarcophagus in stone, of very small dimensions, ornamented with roses, and at the small end with a palm branch. It contained fragments of the bones of an adult. At the end of another *loculus*, and in the direction of the axis, was placed a sarcophagus of larger dimensions and finer work, covered with a lid. At the foot and in front is placed upright a little phial in terra-cotta. Another *loculus* on the side opposite

Legend of  
Jehoshaphat, King  
of Chofat.

Tomb with  
sarcophagi.

to this was covered with a great slab rudely cut, wedged up by little stones placed between its higher edge and the margin of the entrance of the loculus. I had it taken away at once, but there was nothing there except a few fragments of bones falling to powder, and the skull of an adult. All the earth in the chamber was turned over and dug up by the animal which had installed itself there and left plenty of traces of his dwelling, such as quills 0·29 metre long. He had made himself a very comfortable place, the loculi serving for all sorts of purposes.

I gave the men orders to clear out the real entrance to the tomb, and to look in the earth for any other objects or bones.

Next day I went with them, and saw that the primitive opening of the tomb, by which it was now easy to enter, was 10 metres at least apart from that by which I had entered. At the end of the trench I distinguished clearly the great block of stone which originally closed the door. Its displacement shows, what was clear already from the internal aspect of the tomb, that the sepulchre is not in its original condition, and that it has evidently been used for a second time. I think that the sarcophagi belong to the earlier period, for we afterwards found many fragments in the earth. Other sarcophagi unbroken have since been brought to light, notably one larger than any of the rest, covered with a triangular lid.

I ought to have received yesterday everything that was found in the tomb, but the snow, which has been falling for the last two days, has prevented the fellahin from bringing the things. I hope to find inscriptions on the sarcophagi, which appear to be of the same material as those previously described by me.

One of my men told me that Khirbet el 'Adésé, north of Bir Nebala, is called also Beit Lidje. Khirbet el 'Adésé.

Some days ago we went with a Silwan man and a Bedouin of the Sawaheret el Wad, to visit some tombs near Beit Sahour, in the Kedron Valley, a little below the Bir Eyûb. The tombs that we saw offer nothing new or remarkable. We visited the great tomb first explored by Captain Warren, and found there a quantity of bones and skulls, apparently of recent date. Tombs at Beit Sahour el 'Atiga.

Our guides gave to the little wady south of the great wady which separates these tombs from the ruins of Beit Sahour the name of *Wady es Sala*, or *Djéf't es Sala*. On the road I gathered certain bits of information from the guides, some of which seem to be of value. Wady es Sal'a.

The high hill rising to the west of Beit Sahour, separated from the Djebel Deir Abou Thor by the Wady Yasoul, is called *Djebel el Muta-chabber* (el-mukabber). From the summit one can get a very fine panoramic view of Jerusalem from the Tower of David to the south-east angle of the Haram. High up grows an olive-tree called *Zeitounnet en neby* (the prophet's olive-tree). The prophet (Mahomet, the legend says) being come to besiege Jerusalem, occupied by Pagans, *djahiliyé* (neither Christians, Jews, nor Mussulmans), placed himself at this Djebel el Mukabber. The Prophet's olive tree.

tree, and began shooting arrows at Jerusalem. One of them struck the king of the Pagans, who was at a window of the Haram, and killed him. But the Pagans came out in force against the prophet, and made him beat a precipitate retreat. It was not till later that the Pagans were vanquished and Jerusalem taken by Hassam, son of Paul (Boulos), father of Martha, brother of Simon (Sim'an), surnamed 'Es Salibî, meaning Salib, a cross.

Cave of  
Adullam,  
called el  
Misa.  
Merd, the  
city of Nim-  
rod.

One of the guides, speaking of the cave at Khureitun, the traditional cave of Adullam, said that it was called *Meghâret el Mi'sâ*.

He also gave us a long story about the ruins of Merd, south of the Neby Mousa. These, he said, were the city of King Nimrod (Medînet Nimroud), who impiously caused himself to be adored by his subjects, and who was killed by a wasp or a mosquito (*hêshês*) sent by God to chastise him, and which got in at his nose (a well-known legend). They still show at this place the tomb of Nimroud. Here we have evidently to do with the onomastic legends, to which I have already called attention; in fact, the name of Nimrod comes, like that of *Merd*, from a root (*marad*) used in Hebrew and Arabic.

All attempts to find an ancient locality hidden under the name of Merd have hitherto failed. Some have proposed the Maroth of Micah i. 12 ("For the inhabitant of Maroth waited carefully for good; but evil came down from the Lord unto the gate of Jerusalem"), confounded by Schwarz with Me'arat.

In the genealogy of Judah, as it is given in 1 Chron. iv., are a crowd of names of cities belonging to the territory of the tribe of Judah presented as personages descending from the patriarch. Among these synonyms are the group of the sons of Ezra. 1 Chron. iv. 17: "And the sons of Ezra were Jether, and Mered, and Ephêr, and Jalon." Without entering into the various questions arising out of this obscure passage, which exegesis has not yet solved, I confine myself to remarking that the ethnical synonym Mered is the *exact* equivalent of the Arabic *merd*, and that it is possible that the text refers to the locality designated under the latter name.

Mered, son  
of Judah.

Bêr Eyoub.

I heard my guide say Bêr, not Bir, Eyoub. The pronunciation is curious, because, under this form, the word bêr (well) gives exactly the vocalisation of the corresponding Hebrew form.

Legend of  
Job. His  
miraculous  
cure at Bir  
Eyoub.

*A propos* of Bir Eyoub, a current tradition among the Silwan people tells how Job (Neby Eyoub), lying ill, and eaten by worms, retired into a cavern situated to the west of Bir Eyoub (in the side of *l'Ijebel es Soneik*), whither his wife came every morning bringing him food. (Here follows the legend that may be read in Khoudemir, and which is found at length in Herbelot's Oriental Library). Every day Job went to bathe in a hole filled with water where the well now stands, until, by the will of God, he recovered his health, and came out of the bath young again, like a boy of fourteen years—*ibn arba'atacher sênê*—literally, "like a son of fourteen years." The latter expression is very striking, for it is the literal representation of the Hebrew form,

that is seen, for example, in 2 Chron. xxvii. 1: "Jotham was twenty and five years old . . ." Literally, "Jotham was a son of twenty and five years."

This hole, filled with water, became then a fountain, which is now the well. The fellahin distinguish very clearly between the water of Bir Eyoub, which is sweet (*helwê*), and that of the Silwan fountain, which is brackish (*māl'ha*). This fact is the more curious because Josephus expressly speaks of the *sweet* water of Siloam. I do not see how to fit this characteristic detail, which would apply much more to Bir Eyoub, with the theory which makes the fountain of Silwan the old Siloam.

C. CLERMONT-GANNEAU.

### ON THE IDENTIFICATION OF SCOPUS.\*

IN a previous report (see *Quarterly Statement*, Jan., 1873, p. 20) I mentioned a site which appeared to me undoubtedly that of Scopus. As my views have lately met with unexpected confirmation, I propose to enlarge a little more on the subject.

The point which it appears to me has been most neglected is that Scopus was not a mere high point of ground, but in the immediate vicinity was a plain (*χαμαλὸς*, depression) of some considerable extent. Not only have we the positive assurance of this by Josephus (*Wars*, v. 2. 3), but the events which are recorded in connection with this locality also require such a supposition. Alexander, advancing on Jerusalem from the north, was here met by the high priest and priests (Joseph. *Antiq.* xi. 8. 5) accompanied by a great multitude. That some spot should have been chosen where the spectators, spreading out on a convenient extent of plain ground, might have witnessed the meeting upon whose termination the fate of Jerusalem depended, it is only natural to suppose. Such a site it is not easy to find in many places on the north side of Jerusalem. When we read that in two distinct advances upon the city by Cestius and by Titus a camp was formed, it at once suggests that the site must have possessed military advantages of a striking character, and a position favourable for the construction of a camp.

Looking at the matter simply from a military point of view, it is also evident that generals, experienced as were the Romans, would never have committed the mistake of a flank march in the face of the enemy, which would have left their main line of communication open to attack. Now, knowing as we do that the 12th and 15th legions were advancing from Galilee, through Samaria and Gophna, and there is no reason to suppose by any other than the main Roman route through the country

\* See Josephus, *Ant.* x. 8. 5 ; *Wars*, ii. 19. 4 ; v. 3. 11.

passing by Nablus, it seems absurd to imagine that on arriving at the ridge north of Jerusalem they should have marched away eastwards to the narrow summits which stretch towards the traditional Mount Scopus.

And again, when we reflect that these legions were afterwards employed towards the *west*, and not on the *eastern* side of Jerusalem, where another force was subsequently encamped, it becomes impossible to suppose that Titus should have marched and countermarched so important a portion of his army eastwards and westwards always in face of the enemy.

From these considerations we obtain certain requisites for the position of Scopus. First, that a plain should be found capable of containing at least two Roman legions, encamped in *castra aestiva*, and not a mere hasty construction intended simply for one night's occupation. Secondly, that in the immediate vicinity of this plain should exist a ridge from which Jerusalem should for the first time become clearly visible to those advancing from the north. Thirdly, that the distance of the site should be seven furlongs from the wall bounding Jerusalem on the north in the time of Cestius, commonly known as the *third*, being that built by Agrippa, measured probably from a gate or point of importance on that line. Fourthly, that the site should be upon the very route by which the Roman army advanced. Fifthly, that it should present military advantages as a camping ground. Sixth, and lastly, that at the distance of some three furlongs farther north, a second camping ground should be found for the 5th legion advancing by the same line to support those in position at Scopus. If, in addition to these very definite *data*, the name, or one of similar meaning, can be found in the immediate neighbourhood, the question, it would seem to me, is virtually set at rest.

The site which more than a year ago I pointed out as fulfilling these requirements is immediately east of the great north road from Jerusalem to Nablus. It is one of the peculiarities in the site of the capital that it is entirely concealed until the last ridge has been reached, from which the road descends rapidly and passes along to the Damascus gate. From this ridge the grey northern wall of the city is seen in its full extent—the great domes of the Holy Sepulchre and Jewish Synagogue, the Tower of David, and the crescent of the Mosque lying low down on the sloping site which makes Jerusalem appear as if in constant danger of sliding into the Kedron valley—all these burst suddenly on the view at a distance of about one and a half miles, and remind one forcibly of the description by Josephus of that place “very properly called Scopus,” from whence first “a plain view might be taken” of the great Temple and the flourishing city, now dwindled into a round chapel and a moderate Oriental town.

Directly in front of this ridge is a small plateau averaging 300 yards in breadth, and extending for about 800 yards eastwards to a point where the ground sinks rapidly and forms a shallow valley, which, turning south, runs into the larger Wady el Góz. On the west the ground becomes rougher and higher, extending to the eminence above the tombs of the

Judges. Southwards, and between the city and the plateau, another swell in the ground divides the latter from Wady el Góz, into which there is a rapid descent. Thus, any force upon the plateau is completely hidden from observation in the city. Occupying thus a position of considerable strength, and commanding the approaches on the south and south-east, where the ground is lower, the site is only approachable on a level on the west, but a very small force holding the ridge upon this site would effectually prevent surprise from any quarter. The ridge behind the camp communicating with the rear along the north road, runs also continuously round to the summit of the traditional Mount Scopus, and thus for any force on the plateau there was a perfect communication along ground which could not be commanded with that encamped on the Mount of Olives. It is clear, therefore, that the plateau possesses the military advantages of being directly upon the line of communication, of being difficult to approach from the front, and having good communications with the flanks and in rear. Finally, it is capable of holding a large body of men entirely concealed at no great distance from the enemy.

We have now to consider whether the site is large enough for the numbers encamped, observing, however, that if it be not, nevertheless it is the largest available on this side of the city, where it would be extremely difficult to find a similarly suitable bit of ground.

The numbers of the Roman legion differed essentially at different periods of the history of the city; we have, however, only to deal with the ordinary numbers during the Imperial period. The legion was then divided into ten cohorts, of which the first, which belonged to the eagle, consisted of 960 men, the remainder of 480 each, answering to a brigade of 11 battalions in modern warfare. The total number of men was therefore 5,280, and we must count on 15,000 men for the sum of the two legions in question without reference to *supplementa* and camp followers.

In the fourth century of the era of the city a hasty camp for two legions with cavalry and *socii*, a force of 16,800 foot and 1,800 cavalry, measured 2,017 Roman feet (11·6 inches) square, and contained therefore about 114 acres. In the seventh century three legions with *supplementa*—a consular army, occupied a stationary camp (*castra aestiva*) which measured 2,320 by 1,620 Roman feet, or an area of about 86 acres. It was of the latter rather than the former proportions that the camp of Titus for two legions was constructed, and we shall therefore require a space of about 60 acres at least. The plain, as measured without encroaching upon the slopes of the hills, occupies about 50 acres, but the remaining 10 are obtainable either by crossing the road or by descending slightly the slope of the valley on the east. The space is therefore sufficient for the site of the required camp.

There is no difficulty as to the position required for the second camp, that of the 5th legion. At a distance of some three furlongs north, and beyond the ridge, there is a considerable piece of plain ground extending towards Tell el Fúl, close to the great north road.

The military and other requirements are thus fulfilled by the site in question in a manner not possible under other circumstances.

Finally, we obtained yesterday a confirmation for which I had hardly hoped. The name El Meshárif had been already obtained as applicable to certain points along the ridge, but the unhesitating verdict of more than half a dozen witnesses separately interrogated during our ride pointed to the ridge immediately over which the Nablus road passes as being the exact point to which this title, meaning "the look-out," and identical with the Greek *σκοπος*, applied.

It seems to me, therefore, impossible to dispute the identification, which is of value, because seven furlongs, measured from the centre of the plateau, reaches exactly to the large masonry discovered by Captain Wilson and supposed to be part of the third wall, thus militating against the modern idea which would on the north confine ancient Jerusalem to the narrow limits of the modern town.

CLAUDE R. CONDER, Lieut. R.E.

NOTE.—I learn that M. Gannean had already obtained this name for the same spot in 1870.

### THE SHAPIRA COLLECTION.

THE following correspondence appeared in the *Athenæum* of Jan. 24 and March 7 of the present year. It is reproduced here, by kind permission of the Editor, in order that our readers who have already read the first announcements of these forgeries in earlier reports, may be informed of the exposures that have been made.

"JERUSALEM, Dec 29, 1873.

"Before detailing the results obtained on the spot in the elucidation of this question, I may be permitted to record the fact that my opinion on the subject was formed at the outset, and has never varied. The first papers printed in Germany on the subject of this inscribed pottery produced upon me the immediate impression that it was the work of a forger, while the drawings sent to London, and shown to me, served to confirm this first impression. Nevertheless, my judgment being based on indirect, and, so to speak, personal proofs, I did not think myself justified in pronouncing my opinion publicly, although several times invited to do so. Before the verdict of scientific authority so considerable as that of Germany, I thought it wise to reserve an opinion which might have seemed rash, or even inspired by a sentiment of jealousy or envy. I had, however, several opportunities of speaking confidentially to members of the Palestine Fund Committee, who can bear witness to my assertions. I had even gone so far as to point out *à priori*, and without any information, the probable forger—the author of the mystification. The event has proved me right. The name of the person

very soon figured in the official Reports (which accompanied and authenticated many of the specimens) as the principal agent employed by M. Shapira, whose good faith, I hasten to say at once, I have no intention of suspecting, and who appears, so far as I have gone, to be the first dupe, and not the accomplice, of this colossal deception. The forger in question, as I have always said, is Selim el Gari, a painter by trade, to whom the habit of daubing bad Neobyzantine pictures for Greek pilgrims has imparted a certain readiness and skill. I had to do with him at the commencement of the Moabite Stone business. He had copied a few lines from the original seen by him at Diban, and I have always carefully kept this copy, which was rough but faithful, and which at least enabled me to detect from the very first, in the fantastic inscriptions of the Shapira Collection, the characteristic and peculiar manner in which our artist sees, understands, and designs the Moabite letters; among other things, there being a certain manner of drawing the *min* peculiar to him, which, coupled with other facts of the same kind, enabled me to recognise his workmanship with as much readiness as one recognises a man's handwriting.

"In addition to this, the examination of the inscriptions was, according to me, amply sufficient to show that they were apocryphal. How to explain, for instance, that hundreds of texts found in Moab written in characters sensibly similar (much too similar) to those of the *stèle* of Mesa should be completely unintelligible? For it is impossible to receive as serious translations certain unfortunate attempts made in Germany and England to make sense of these inscriptions—attempts often contradictory, which have served to show, not only the ingenuity and erudition of their authors, but the impossibility of translating texts, supposed, from the alleged circumstances of the 'finds,' and their palæographic appearance, to be contemporaneous with the Moabite Stone.

"At the date, then, of my leaving France, my mind was perfectly made up on the question, although I had as yet communicated my opinion only to certain scholars of France and England who did me the honour of asking it. I knew beforehand what I should find at Jerusalem, when I proposed to bring to light the whole of this tangled business, and to find material proofs of what, hitherto, I had only advanced with great reserve.

"One of my earliest cares, therefore, on arriving here was to visit the new collection of M. Shapira, at present in course of formation, and intended to join its elder sister in the Museum of Berlin. It was not without trouble that I obtained the necessary authorisation; and it was only through the good offices of Mr. Drake that I was enabled to overcome the scruples of the owner, who believed me, I do not know why, animated by some hostile sentiment. I visited the famous collection in company with Mr. Drake, and in presence of M. Shapira himself. It is composed of statues and vases, covered with inscriptions, supposed to be Moabite, lavished in suspicious profusion. The figures are rudely formed, and yet betray the hand of a modern. It is quite sufficient to

compare them with the statues, certainly rough, but authentic, of Cyprus, to see immediately the difference between a work simple and rudimentary, but spontaneous and sincere, and that of a modern Arab reproducing mechanically models more or less disfigured. I at once recognised, in these models of badly baked earth, the manner and style of our artist, of whom I already possess certain drawings, which I propose to publish with his copy of the Moabite Stone, for the edification of the learned.

“Not only the form of the objects, but the material itself of which they are made, cry aloud, ‘Apocryphal!’ The clay is absolutely identical with that used now by the Jerusalem potters; it is hardly baked at all, and yet you will observe under the faces of the little discs of properly-baked clay with which some of the vases were full, and which are taken for coins and *tessere*, the mark of the threads of the linen on which the soft plate had been laid in order to be cut into circles. I have also seen on some of the specimens the famous deposits of saltpetre, which play so great a part in the question, and which have been produced by the partisans of authenticity as proofs of their extreme antiquity. These saltpetre deposits are only superficial, and must have been obtained, as I have always said, by plunging the things in a solution of nitre. If in some of these specimens which I have not seen the saltpetre has penetrated through the whole mass, it is because the clay was still less baked and the bath was longer prolonged.

“In short, I did not see, in the whole collection, *one single object which could be regarded as genuine*, so that I remarked to Drake when we came out, ‘There is only one thing authentic in all that we have seen, the live ostrich the Arabs have brought here with the pottery. And as to the pottery itself, it only remains for us to find who is the potter that made it.’ My opinion is, and always has been, that the collections of M. Shapira, all derived from the same source, are false from beginning to end,—not only the inscribed pottery, but also that which has no letters on it, and is like the other in form and material.

“The preceding may be regarded as furnishing no sufficient proof. Accordingly, since my arrival here, I have been looking about for arguments more positive and material, and for palpable proofs. Convinced that the pottery was the work of Selim el Gari, and that it was made at Jerusalem, I took measures to surprise him, *la main dans le sac*. It was evident to me that Selim himself made the statues; as to the vases, he might either make them himself, or cause them to be made by a professional potter, adding, for his own part, the inscriptions intended to make them valuable; in either case he must have recourse to a potter, in order to get his things baked in a proper oven. Starting with this certainty, I looked about among the potters of Jerusalem, five or six in all, and very soon found out the whole truth.

“The first piece of information, which put me in the right track, was given me by a certain Abd el Bagi, surnamed Abu Mansura, a journeyman now in the employ of the potter Hadj Khalil el Malhi, whose shop

is between the Spanish Consulate and the Damascus Gate. This man, whom I questioned with the greatest care, for fear of his discovering the object of my curiosity, told me that he had once worked for a certain Selim el Gari, *who made statues and vases in earthenware (terre cuite) with writings*, but that he had left off working for him for some time. In order not to awaken suspicions, I did not press my questions any further, but confined myself to asking him if he knew to what potter Selim now sent his vessels to be baked. Abu Mansura indicated a potter by name Bakir el Masry, to whom I then went. This information was not correct. Bakir, whose name and accent indicate his Egyptian origin, had never worked for Selim, but he had, and still has, in his service a young apprentice, Hassan ibn el Bitar, who has for a long time worked at the pottery of Ahmed 'Alawié, at the present time employed by Selim, whose shop is between the Mawlawiyeh and the Damascus Gate.

"What follows is the exact narrative which I took from the mouth of Hassan, always being very careful to let him speak, without suggesting anything by injudicious questioning:—

"Hassan entered into the service of Bakir about four months ago: he was formerly apprenticed to Ahmed, with another boy named Khalil, son of Saïd the barber, and Abu Mansura, journeyman.

"Selim el Gari got soft clay of Ahmed, made out of it, at his own house, statues of men, dogs, and women, with noses, hands, feet, and breasts, the whole covered with writings: he also made little discs of clay like *saltout* (pieces of money): then he sent them to Ahmed's to be baked. Ahmed also made vases for him in turn, and Selim wrote letters on them.

"It was Hassan and his fellow-apprentice Khalil who were charged with carrying the things from Selim's house to the shop, and *vice versâ*. The first time Selim himself took him to his house to make him know it; he was then staying in the street called *Harat el Djonivalidé*, near the Latin Patriarchate. He has since moved, and has gone to the street *Agabat el Battikh*, near the Spanish Consulate.

"Hassan has only been once in the latter house. Selim at first addressed himself to the potter, Hadj Khalil el Malhi, but could not come to terms with him.

"Selim, after having shown his house to Hassan, gave him two *bechliks*: for every journey he made he gave him one *bechlik*, or a *bechlik* and a half, sometimes two. To the workman, Abu Mansura, he gave one or two *mejelies*, and to Ahmed, a sum much larger (a pound, if I remember right).

"The journeys were made between the *Maghreb* and the *Icha*; that is to say, in the three or four hours which follow sunset: Hassan, for his part, carried the things under an *abayé*, hiding them as much as possible, as he had been instructed. He even asserts that he left Ahmed in order not to continue an occupation which made him fearful of being arrested by the patrol.

“ ‘Not only were the objects minutely counted, but if any one got broken, the very smallest fragments were carefully picked up. Selim gave, one day, two piastres to a boy who picked up a *sahrtout* in clay that Hassan had dropped.

“ ‘Once they gave Hassan to carry a large statuette, still hot, which burned his hands, his chest, and his arms.

“ ‘When he brought the things to Selim, he saw him on many occasions dip them into a caldron *filled with water*; one night Hassan himself, at the request of Selim, drew water from the cistern to fill the caldron. Selim left them to soak for some time, and then took them out to dry: he said that it was to make them grow old.’

“ I insist particularly on the *spontaneous* character of this narrative, which I have purposely reproduced in its own simple and methodless style; it contains details which cannot have been invented, and the exactness and veracity of which I have been able to establish by other means. I believe it conclusive: it is notably instructive as to the process adopted by Selim in order to impregnate his things with that *couche* of saltpetre which was to be their brevet of authenticity. I think that we can henceforth, with these elements of information, consider the matter as settled.

“ C. CLERMONT-GANNEAU.”

NOTE.—In printing the above extract from M. Ganneau’s letter, it will perhaps be well to state the line of action taken up by the Committee of the Palestine Exploration Fund from the first announcement of the “find.” It is to Mr. Tyrwhitt Drake that the Committee owed their first sketches and copies of the jars, idols, and inscriptions. Other copies were very kindly sent by Dr. Chaplin. On Lieut. Conder’s arrival in Jerusalem, he made careful water-colour sketches of the more important objects; but the figures and vases failed to carry with them, to the eyes of English archaeologists, any evidence of their genuineness. Still, as nothing but copies had been sent home, opinion was withheld until specimens could be seen and handled. With the inscriptions it was different. Mr. Vaux, himself a member of the Executive Committee, at once declared, without hesitation, that these were, one and all, forgeries. Acting chiefly on his opinion, the soundness of which is now clearly established, the Committee refused to have anything to do with the collection. Meantime, fresh intelligence arrived. Two German travellers, with M. Shapira, had dug up similar fragments of vessels themselves in Moab. New specimens came in freely. It was reported that whole camel-loads of pottery were habitually transported to Damascus to be broken up; pamphlets were written on the inscriptions; and then the German Government, buying the whole of the first collection, gave a stimulus to the production of a second, which has since been proceeding rapidly. Against this evidence were to be placed the facts that recent travellers had found nothing similar in Moab; that the American survey party in Moab had positive assurance from all quarters that

nothing ever had been found; that Mr. Wright, of Damascus, had disproved the camel-load story; and that the English archaeologists refused to be convinced.

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“JERUSALEM, *Feb.* 11, 1874.

“I had noticed, as I thought, a difference in style between the later inscribed and the earlier uninscribed pottery, but my suspicions had never taken a definite form till early in November. I then received accounts from some Bedawin, who said that the ‘written jars’ were made at Jerusalem, and thence transported to Moab, buried there, and shown to Mr. Shapira as found among ruins or in caves. This information I privately transmitted to the Palestine Exploration Fund, on the 11th of the same month. On the 24th of December my inquiries resulted in a statement voluntarily made by a potter, one Haj ‘Abd el Baki,\* with whom I had been in communication since the end of November, of which the following is a translation:—

“‘Since more than a year, Selim and his father the Chandler used to come over to me and ask me to make for them large and small pots, and to take from me clay, and make it into images, and write upon them, and bring them to me to bake for them, and they called them “Antika,” and they used to make of it hundreds of different objects; such as birds, and heads, and images, and hands, and spoons, and such like: and I baked them and returned them to them, and they gave me a bakshish, and asked me not to mention it to anybody; they never left with me any piece, however small, but delivered them to me counting them, and received them back in the same manner.

(Signed) “‘EL HAJ ABD EL BAKI.’

“‘At the request of Mr. C. F. Tyrwhitt Drake, I hereby certify that the foregoing statement was read over to Haj ‘Abd el Baki el fawakhiri in my presence, who declared that it was his own, and that he fully confirmed it.

“‘British Consulate, *Dec.* 24, 1874.

(Signed) “‘NOEL TEMPLE MOORE, *Consul.*’

“No one who has, as I have, seen almost every object in the collection, will, I think, fail to admit the differences observable between the earliest and the latest. Among the former, few were inscribed; and among the latter it is just the contrary; the later pottery differs, too, in texture from the earliest. The theory which seems to me most probable is, that having sold a genuine lot of antique earthenware to M. Shapira, the forger then proceeded to dupe this energetic collector, of whose honesty and good faith in the matter I have no doubt.

\* M. Ganneau spells this name Bagi, and that of Selim el Kari, Gari.

"I cannot see why so much stress is laid on the fact, that some of the *tessere* have the impression of linen (or as it rather seemed to me of rough-grained wood) at the bottom, for every one must be well aware that marks as fine, or even finer, such as the lines in finger prints, are found in pottery, whose antiquity is undisputed, if it has been preserved under favourable circumstances. I think also, that if M. Ganneau had seen the former collection, he would not have stated that, 'if in some specimens which I have not seen, the saltpetre has penetrated through the whole mass, it is because the clay was still less baked and the bath was longer prolonged.' I distinctly remember one of the early jars, made of good red pottery, being destroyed by the efflorescence of salt, and consequent flaking off of the outer coats, in a manner similar to that which may be seen in the case of some undoubtedly genuine terracottas found in Palestine, and now in my possession. . . . At present, I fear the genuine and the forged are inextricably mixed up in the Berlin Museum, unless some competent archaeologists are able to separate them. I may add that immediately on receipt of the news communicated in the columns of the *Athenæum*, Dr. Kersten, Acting Consul-General for Prussia, proceeded with Pastor Weser, the Lutheran Minister here, who accompanied Shapira to Moab, and searched Selim el Kari's house throughout, but did not succeed in finding any evidence to confirm the charge laid to his door.

"C. F. TYRWHITT DRAKE, F.R.G.S."

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"JERUSALEM, *Feb.* 19, 1874.

"Since my letter of the 12th inst., an unofficial inquiry, to which I was invited, has been held at the German Consulate, by Pastor Weser and Mr. Dinsberg, to try and find out the truth of the statements made by the potters to M. Ganneau, and mentioned in his letter of Dec. 29, 1873, in the *Athenæum* of Jan. 24, 1874.

"The result of this inquiry, which extended over four days, is most unsatisfactory. The old man, 'Abd el Baki, declared for three days that he knew nothing of the matter, and that he never made the declaration (published in my former letter) in the English Consulate, though when the document was shown him he acknowledged the signature. The boy, Hasan ibn el Bitar, at first declared the story he told to M. Ganneau to be in all respects true; he then, after two such declarations, changed his tactics, and asserted that M. Ganneau had taught it him. The other potters denied all knowledge of the matter. On the last day M. Ganneau was present, and an arrangement seems to have been made among the potters. 'Abd el Baki and Hasan both swore roundly that they had been taught their story by M. Ganneau, and Selim el Kari completed the attack by saying that he had been offered £100 by that gentleman if he would confess that he and Mr. Shapira forged the

pottery. After such contradictory statements and varying evidence it was both useless and impossible to proceed further with the case.

"The conviction rests unchanged in my own mind, that the declaration made to me on December 24 by 'Abd el Baki is the truth. It is now, however, utterly impossible to estimate the extent of the forgeries. The seeming combination and pre-arrangement of testimony among the potters show that the forgers (for there are probably more than one) have spared no pains to hide the truth, in which they have succeeded but too well. The manner of their attack on M. Ganneau seems to me to point to their guilt, now impossible to prove, though it seems not unlikely that a few months' patient inquiry would have served to settle and define the extent of it.

"CHAS. F. TYRWHITT DRAKE, F.R.G.S."

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*To the Editor of the "Athenæum."*

"JERUSALEM, Feb. 19, 1874.

"Allow me to inform those of your readers who have perused M. Ganneau's letter concerning the above subject, that the evidence adduced therein is just now being sifted on the spot by four gentlemen of the highest character, one of whom is an Englishman; and, although the Minutes of the Proceedings are not yet in my hands, I am warranted in telling you that all the witnesses on whom M. Ganneau relies have been found utterly worthless.

"I, for myself, have not given any credence either to their former testimony or to their present statements levelled against M. Ganneau; but the investigators have, by a severe cross-examination of several days' duration, not only of the witnesses themselves, but also of many other persons to whom attention was drawn in the course of the inquiry as being connected with the pottery trade, not been able to produce the *slightest evidence against the genuineness of my collection*, nor has the sudden search of Selim, the suspected forger's house, brought anything to light to warrant the accusation.

"Moreover, it has proved impossible, in spite of many attempts, to obtain from any of the potteries here any work resembling the Moabite pottery; whilst, on the other hand, during a visit to Moab, which I paid some two months ago, together with the Rev. H. Weser, seven more vases with inscriptions were found by us which, from the place and the circumstances under which they were dug out, must unquestionably be genuine.

"I hope, with your permission, to give you, by-and-by, a detailed and complete refutation of the charges brought against the genuineness of my collection.

"M. W. SHAPIRA."

“JERUSALEM, *Feb.* 17, 1874.

“That part of my report on this subject which appeared in the *Athenæum* of Jan. 24 has not been received here, as might have been expected, without producing considerable disturbance. I did not conceal from myself the probable consequences of doing what I considered, and still consider, my duty.

“M. Weser, a German clergyman, who takes a very peculiar interest in the affair, instituted, immediately on the news of my letter reaching Jerusalem, a personal inquiry into the facts that I had revealed. I was not made acquainted with this inquiry at its commencement, and it was only two days ago that he wrote inviting me to hear the new declarations of certain persons named in my report—declarations presenting ‘essential differences’ to those obtained by myself. I had no reason for refusing this gentleman, whom I had not the pleasure of knowing, the means of carrying to its end an examination which he had undertaken of his own accord, and which he told me, on the occasion of his visit, was to preserve a *strictly private character*. Perhaps it would have been more correct if he had addressed himself to me from the commencement. However, this little irregularity could easily be overlooked, after receiving his verbal explanations, and I proposed a meeting at the temporary residence of my friends and neighbours, Lieut. Conder and Mr. Tyrwhitt Drake. I went there with M. Lecomte. Pastor Weser was accompanied by two of his fellow-countrymen, one of whom served as Arabic interpreter.

“The apprentice Hassan ibn el Bitar, whose declaration you have had already, was brought forward, and declared, *in my presence and on his oath*, that having been brought to my house, I had *locked him up, beaten him, and threatened him with death*, to force him to repeat the lesson which I had taught him.

“After him, we heard another potter, Abd el Bagi, called Abu Mansoura, of whom Mr. Drake had previously obtained a deposition, written before the English Consul, certified by him, and containing similar revelations to those of Hassan on the ceramic proceedings of Selim. The new witness swore by Allah and the triple divorce that I had sought him out and told him that he must repeat, *word for word*, all that he said and signed later on before the Consul.

“Baker el Masry next affirmed, also on oath, that Hassan, on coming away from me, had told him exactly what precedes.

“Another potter, Ahmed el ‘Alamiyé, deposed in the most energetic manner, and on the most sacred oaths, that all the declarations related above were the exact truth, that he absolutely did not know Selim, and had never worked for any one of that name.

“To crown the whole, they brought the hero himself, Selim el Gari, who, as I am informed, had been arrested and imprisoned up to that moment at the German Consulate.

“Selim, after having protested his entire innocence, turned to me with an oratorical gesture, which was not without dignity, and began to

apostrophize me with vehemence. Thereupon, one of the German gentlemen, who served as interpreter to Pastor Weser, interrupted him sharply, and told him to be quiet.

"Surprised at the eagerness with which his silence was commanded, and not suspecting the intention, probably charitable, which animated the interruption, I insisted on Selim being allowed to finish his discourse, and ordered him myself to speak at full liberty.

"*'M. Ganneau,'* he went on, *'meeting me two months ago in the street of the Christians, under the Arch, near the Greek convent, told me that he would give me a hundred pounds if I would affirm that the Shapira pottery was false, and was fabricated by Shapira and myself.'*

"In all these depositions there is a remarkable and striking unanimity. Summed up, they amount to this:—*M. Ganneau, by laying traps, by blows, threats of death, promises, bribery, and other measures not to be confessed, has obtained, or tried to obtain, lying evidence to prove the falseness of the Shapira antiquities.*

"The matter, put thus clearly, admits of only one way of looking at it:—(1) Either I have devised this black plot. (2) Or these men are either hardened scoundrels, or else poor devils telling their story from fear or interest, and under pressure of the kind that they pretend me to have exercised on them.

"I do not know which alternative Pastor Weser and his countrymen have decided on adopting, not having wished to insult them by asking, and supposing that this absurd accusation would refute itself by its very enormity.

"Let us put aside personal feelings. In admitting the first hypothesis the matter would be settled; and not only at the bar of public opinion, but in the courts of justice, would my conduct be arraigned. But even then one would have to consider: (1) the reasons which would have urged the adoption of a line of conduct so dangerous, and, so to say, so clumsy; (2) the reasons why these worthy Arabs did not accuse me at once,—why they commence, as Pastor Weser loyally informed me, the one (Hassan) by repeating *twice* purely and simply the confession taken down by me; the other (Abd el Bagi) by *absolutely denying* his written deposition placed in the hands of Mr. Drake; and, lastly, the reasons why they have suddenly turned round, like one man, and denied their contradictory statements, in order to accuse me, *with common accord*, of the most unlikely conduct that could be imagined.

"If, on the contrary, their story be taken for what it is worth, we find ourselves facing the second hypothesis, which may be considered under two different aspects:—

"(1) Either these people lie by an instinctive movement of self-defence natural to Arabs when they think they are threatened; or, which is more probable, considering their suspicious unanimity, in obedience to an order given by the only man among them really compromised; and they now deny entirely the truth they made no difficulty about confessing six weeks before.

“(2) Or else they lie to-day, as they lied six weeks ago ; and we have no more right to believe what they said then, to Drake and to me, than what they say now.

“In the former case the conclusion is clear : it is what I have exposed in my report, and which I maintain still—*the pottery that I have seen, with all like it, is false.*

“In the second case, I should have made myself the echo of a calumny in setting down inconsiderately imputations invented at pleasure. But, then, how to explain that these arbitrary imputations contain details presenting the most strange coincidences with all that we know already of the affair, the persons, and the things mixed up ?

“How, for example, could the young apprentice Hassan, who, I repeat, related the facts perfectly simply, *without being guided by any leading questions*, know the name, the profession, and the successive residences of Selim ? How could he, spontaneously, describe the little *tessere* of clay (*sahtout*), the statues of men, dogs (*sic*), and women, the vessels covered with writing, &c., if he had never seen them ? How, on the other hand, could the workman interrogated by Mr. Drake have given him separately information entirely agreeing with that of Hassan ? The only reply is, that what these people said then was true, or that I have, in fact, organised the fantastic conspiracy that they now bring to light. Lastly, and not the least argument, if I had been the dupe of a lie, Selim would be innocent : now if Selim is innocent, his *rôle* is perfectly simple ; strong in his cause, he has only to deny. Why have recourse to the expedient, desperate in its audacity, of accusing the very man who hoped to unmask him of trying to corrupt him ? Either he tells the truth, and the pottery is authentic, or he lies in accusing me, and the pottery is as false as his allegations. He has bound himself to one of these conclusions indissolubly, and with his own hand. To myself, this clumsy calumny seems as good as a confession. Those who do me the honour of supposing me incapable of the basest, the most odious, and at the same time the most stupid machination, may say with me—*habemus confitentem reum.*

“To sum up, we have returned to our *point de départ* ; but our journey has not been in vain. We have, on the way, eliminated the possibility of error ; we have brought ourselves face to face with a dilemma. Either I am myself an illustrious impostor,—or the pseudo-Moabite pottery must be definitely banished from that scientific domain into which it should never have been allowed to enter.

“CHARLES CLERMONT-GANNEAU.”

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## NOTES.

## (1) MR. SCHICK'S WORK AT JERUSALEM.

OUR esteemed contributor, Baurath Schick, furnishes some interesting information relative to excavations made by him in the vicinity of Jeremiah's Grotto. The excavations were undertaken in the hope of finding the continuation of the remarkable aqueduct leading to the convent of the Sœurs de Sion (see *Quarterly Statement*, 1872, p. 47), and resulted in the discovery of the remains of several rock-hewn channels, but unfortunately at such a level as to preclude the possibility of their being connected with the aqueduct, and we have still no clue to the source from which it derived its supply of water.

In front of the scarped rock at Jeremiah's Grotto, Mr. Schick excavated to a depth of fifteen feet without reaching rock, and found that at some period a number of buildings had been erected against the rock. Excavations were also made at the foot of the scarped rock in a garden a little to the north, and here a row of arched chambers was found running along the face of the rock, and following the line of the escarpment on the eastern side of the garden. In the middle of the garden excavations were made in an old pool, uncovering a portion of a well-built pier of masonry, on which were found some masons' marks similar to those on the churches built in Palestine during the Crusading period. In the face of the rock escarpment, at the north end of the garden, the entrance to a rock-hewn chamber was discovered. This chamber, 15 feet wide and 11 feet long, was at one time divided into two rooms, and provided with a window to admit light, as well as a door with iron hinge and bolt. It was found to be half full of bones and earth, and apparently had been used as a general tomb—possibly Christian, as two crosses were painted in red on the walls. A skeleton was also seen in the rubbish at the side of the excavation. Mr. Schick is of opinion that in these remains he has found the old convent and church of St. Stephen, but they are more probably those of the Asnerie, which was left standing for some time after the capture of the city by Saladin.

## (2) LIEUTENANT CONDER'S ROCK PLAN OF JERUSALEM.

Lieut. Conder writes that the contour plan of Jerusalem, published in the October number (1873), was not, as stated in the preface, constructed entirely from previous work, and that it contained the results of his own work, from which the Valley of the Sisters of Zion and the lie of the rock in the Muristan were deduced.

## (3) THE PROMISED SPECIMEN OF THE NEW MAP.

It has been found necessary to postpone the Carmel map, taken from Lieutenant Conder's Survey, for another three months. The

proof, sent to Palestine for correction and annotation by that officer himself, has been returned, but too late for production in the present number.

#### (4) THE AMERICAN SOCIETY.

A second "Statement" has been issued by the American Society, in which the work has been brought down to the commencement of Lieutenant Steevers's expedition into Moab. Want of space obliges us to postpone a notice of this interesting publication till the July number.

#### (5) THE FRAGMENTS OF THE MOABITE STONE.

At a meeting of the General Committee, held in the Jerusalem Chamber, Westminster Abbey, on Tuesday, Feb. 24th, 1874, it was resolved "that the application of the French Ministry of Public Instruction, Worship, and Fine Arts, for the fragments of the Moabite Stone, containing fifty-six characters, to complete the much larger portion possessed by the Museum of the Louvre, be acceded to, in the interests of science and archæological knowledge."

#### (6) PROFESSOR HAYTER LEWIS ON THE REPORT OF M. CLERMONT-GANNEAU.

The following is extracted from a letter by Professor Lewis:—

"M. Ganneau is quite right in thinking that the tool marks will be of important service in identifying the buildings in which they are found.

"The peculiar delicate looking tooling (always anglewise) distinguishes nearly every specimen of Norman masonry with which I am acquainted. You may see it close here, in St. Bartholomew's Church, Smithfield, and wherever else time has left the surface tolerably perfect. The Norman tooling goes across the flat stone, but follows the lines of the mouldings. This also M. Ganneau has noticed. The dotted marks are, I have no doubt, the well-known thirteenth century tooling, which was done by a claw tool, leaving a number of notches or dots, and so was quite distinguished from the diagonal Norman. I have no doubt whatever that if M. Ganneau finds the mosque of Hebron to be, as I believe that Mr. Fergusson thinks it to be, English work of the thirteenth century, he will also find that the pillars have been tooled with such a tool, and bear the marks which he describes as dotted.

"But in addition to the above, the size of the stones should be noted. The Norman work is very peculiar. The stones are seldom above nine inches square, or a size near this; very regular and well jointed, closely at the uprights,  $\frac{1}{2}$  in. to  $\frac{3}{4}$  in. at the beds. To a practised eye this masonry can be detected at a glance. With the thirteenth century came more machinery and larger stones; still very regular masonry."

LIST OF QUESTIONS AND MEMORANDA SUGGESTED  
BY THE CONSERVATION COMMITTEE OF THE ROYAL  
INSTITUTE OF BRITISH ARCHITECTS.

N.B.—In all cases the most important objects required after photographs of the work have been obtained are accurate plans and sections, plotted to scale if possible on the spot, with the dimensions clearly figured on all the drawings.

1. Name of spot in Arabic (if possible written by a native), and general description.

2. What is the bearing of the structure in relation to the compass?

*Masonry*.—3. What is the geological nature of the stone—especially of the wrought stone? Can it be identified with any local stone?

4. Are there any marks of fire on the same, or any evidence of its having been under water?

5. Describe the character and material of the mortar, and state the thickness of the joints.

6. Joints to be noted when superficial, and depth of joints figured. Is the jointing rectangular? and are the horizontal joints continuous or broken?

7. How is the ashlar work bonded? and of what thickness?

8. How is the rubble work laid? Dry? or with little mortar? (N.B.—It is desirable to procure photographs showing different specimens of this work.)

9. What is the character of the masonry? Show it in detail drawings, carefully measured, and note especially “draft” or “bevelled margins.”

10. Describe the nature of all tool-marks, masons’ marks, &c., and procure rubbings of the same if possible.

11. Is there any mark of a Lewis or other means of raising?

*Arches*.—12. Note and accurately plot the direction of the joints in arches. State whether the arch is crowned by a keystone, or whether it has a vertical joint in the crown.

13. Is there any indication of skew-arches?

14. In cases of a brick structure, describe the size of bricks, the thickness of the joints, and the nature of the mortar.

*General Description of the Structure*.—15. Is the pavement level throughout or raised in any part? (N.B.—If pavement be destroyed, its level may often be identified by marks left in the wall.)

16. Are there any traces of vaults or subterraneous chambers?

17. Are there any traces of an apsidal plan, whether circular or polygonal?

18. Are there any remains of windows? If so, give their height, position, &c.

19. Give the same information respecting any door or doors.

20. Give the same information respecting any pillar or pillars.

21. Are there any remains of roofs? If so, describe whether they are flat, barrel-vaulted, groined, or domical.

22. In case of domical vaulting, describe pendentive and springing.

23. As extensive remains will probably be those of a temple, synagogue, a church or mosque, particular search should be made for any remains of altars, inscriptions, monograms, &c.

*Cromlechs*.—1. What is the number of stones supporting the top slab? and in case of one or more sides being open, to which point of the compass is the opening directed?

2. Are there any holes pierced through either of the stones?

3. Are there any signs of the stones having been squared, or otherwise worked with a tool?

4. Are there any remains of stone circles, stone pillars, tumuli, or other monuments near? If so, show the general plan.

5. Are there any signs of burial in the tumuli or within the cromlechs? If so, describe the exact position of body, and carefully preserve any remains of skulls. If it be not possible to remove them, take their exact contour.

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Most of the above questions have been attended to by Captain Wilson and Captain Warren, whose series of photographs are very admirable. They are, however, generally of too small a size to give the information required as to the details of the architecture, and in some of the most interesting photographs of the masonry there does not appear to be anything to give an idea of the scale. We would suggest that the plan used by Monsieur Viollet-le-Duc be adopted, of having a measuring rod put against the work to be drawn or photographed. It is, however, in respect of the details that further information is more particularly required. Unless the observer be thoroughly acquainted with the various phases which the mouldings, ornaments, &c., have assumed at different times and under different influences, a mere description of them will be of little value. The column of a building, for example, described as Ionic, might be of the date of the immediate descendants of Alexander, or of the Romans, or their descendants, the Italians, at any period for several centuries, or of the Byzantines—or it might have been carved by Greek architects under Roman influence. In order to obtain information sufficient to indicate the date, &c., of any work, the following would be required in addition to what is above mentioned:—Sections of mouldings full size (as the contour of these varied very much at different periods and in different styles, they should, when possible, be drawn by means of the cymograph); large photographs, or squeezes of portions of the ornaments, so as to show the precise way in which they were carved—as both the method of carving, and the general design, varied as much as the form of the mouldings. All traces of pointed architecture should be particularly noted, and the mouldings and ornaments should be copied with great care. The above memorandum will also apply with great force to any sarcophagi, or to the tombs, ornaments, &c., whether rock-cut or otherwise. In all cases careful search should be made for fragments of mouldings built into the walls, and for different kinds of masonry, as these would indicate an earlier structure, and give a clue to its date.

THE  
PALESTINE EXPLORATION FUND.

PREFACE.

It is with the deepest sorrow that we record the death of Mr. C. F. Tyrwhitt Drake, which took place at Jerusalem, on Tuesday the 23rd ult. An attack of fever was followed by complications of a kind which, although the patient rallied at one time so as to give hopes of recovery, proved fatal after three weeks of suffering. Mr. Drake was only twenty-eight years of age. His loss is a grievous one to the work of exploration, and our readers will greatly miss the intelligent and pleasant letters which have for two years and a half helped to keep them informed of the progress of the Survey. In our pages farther on will be found a short memorial paper by Lieutenant Conder.

Lieutenant Conder contributes to the present number a paper on the identification of Enon, the "place near Salim, where there was much water" (St. John iii. 23). Three sites have been proposed; Lieutenant Conder advocates that first proposed by Dr. Robinson. He offers an answer to the problem of the tells of Palestine; they are, he thinks, brickmaking accumulations. He traces the victory and pursuit of Gideon (Judges vii.), identifying, as he goes, the places whither the host fled, "Beth-shittah in Zererath, and to the border of Abel-meholah" (Judges vii. 22). If the chapter be read side by side with Lieutenant Conder's comments, it will be found to have received much additional light. If his proposed identification of Zererath with Ain Zahrah be accepted, it is an entirely new discovery. Lieutenant Conder's argument in favour of Ras el Ain as the site of Herod's Antipatris may be read with the paper by Major Wilson on the same subject.

Mr. Drake, in the last report we have from him, speaks of the continued subsidence of the bottom of the Dead Sea. He also speaks of the curious Kurn Sartabeh, of Akrah, and the ruins of Herod's town of Phasaelas.

The voluminous reports of M. Ganneau continue to be of the greatest importance and interest. They are full of inscriptions, legends, traditions, and suggestions. To architects and those

interested in the controversies which have grown up round the Kubbet es Sakhra, the most valuable portions of the reports will be the account of the columns and balustrade of the building.

The excavations in Jerusalem are, for want of funds, very limited, consisting principally of those in and about the rock-cut chambers north of the Via Dolorosa.

The identifications proposed by M. Ganneau in this number, are, that of Malha with Manocho (see the Septuagint version, Joshua xix. 9), the Forest of Hareth (1 Sam. xxii. 5) with Herché, and Kurn Sartabeh with the place in which Joshua saw the captain of the Host of the Lord (Joshua v. 13—15).

An account of the Second Statement of the American Exploration Society will be found in the present number. It is necessarily brief.

The most recent information on the Shapira Collection is also published. We do not, however, undertake to give in future further arguments on the basis of facts already known.

#### FINANCIAL POSITION OF THE FUND.

Received from March 26th, to June 26th, 1874	... £788	11	5
Including proceeds of Lectures	... ..	31	19 4
Sale of Publications } at Lectures	... ..	19	14 2
Sale of Photographs } and elsewhere	... ..	9	16 0
Balance in banks (June 26th)	... ..	306	14 0

#### PROPOSED ARRANGEMENTS OF THE FUND.

Lieutenant Conder will return to Palestine in the autumn, and resume the work of the Survey. The non-commissioned officers are in Jerusalem, under the charge of Dr. Chaplain.

Lieutenant Conder will read a paper on the Survey at the meeting of the British Association in August, at Belfast.

M. Ganneau will continue his work at Jerusalem and elsewhere during the summer.

#### TRANSLITERATION AND NOMENCLATURE.

It has been decided by the Publication Committee to adopt for the future Robinson's system of transliteration in all their reports and papers.

#### THE PUBLICATION OF THE MAP.

It has been resolved that until the new map is completely finished no steps shall be taken towards publishing any portion of it.

#### THE ANNUAL MEETING.

This was held on Tuesday, June 23rd, at the Royal Institution. In the unavoidable absence of the Archbishop of York, the chair was taken by the Dean of Westminster. Lieutenant Conder read a paper on the Survey, and resolutions were proposed by Sir Bartle Frere, Gen. Sir Frederick Goldsmid, Rev. George Williams, Rev. Dr. Manning, Rev. Dr. Porter, and Mr. George Grove. A full report will be published in the next *Quarterly Statement*.

#### PRICE OF THE *QUARTERLY STATEMENT*.

In future this will be half-a-crown to non-subscribers.

#### THE AMERICAN SOCIETY.

Intelligence has been received from the Secretary of New York that the sum of 60,000 dols. has been collected, and that the money is still flowing in. A second expedition to carry on the work of the first will be dispatched immediately.

## In Memoriam.

CHARLES F. TYRWHITT DRAKE.

LONDON, 26th June, 1874.

THE sad news which has just reached us from Palestine entails on me the painful duty of writing a few last words on one who for two years has been my constant and almost only companion. The death of Charles F. Tyrwhitt Drake adds one more name to the list of those who have fallen in harness in the exploration of Palestine. The fatal Jordan valley climate, to the effects of which I think our heavy loss is mainly attributable, took one member from Lynch's party. Dr. Tristram's expedition did not escape a similar calamity. The exploration of Jerusalem cost the life of one of Capt. Warren's men, and the health of another. In all of these expeditions, however (as in the parallel case of African travel), the actual head of the party invariably escaped. We had trusted that, in the serious illness which obliged Capt. Stewart to resign the command of the survey of Palestine, our debt to the country was paid, and we invariably looked forward with hope and in confidence that all other members of the original party would be able to see the satisfactory termination of their work.

It has pleased God that this should be otherwise, and the only consolation which can be found for the survivors is, that all that could be done was done to preserve the valuable life; that Mr. Drake was in the hands of kind friends and trustworthy followers; that the medical advice of Dr. Chaplin was, both from his peculiar experience and his unusual ability, all that could be desired, and that his treatment of the case was entirely confirmed by the opinion of his brother practitioners.

I believe that from his childhood Mr. Drake suffered from an asthma, which rendered life in his native country almost an impossibility. He often told me that he felt it beyond hope that he should live to see his prime, and it was to the enthusiastic desire to do something worth remembering in a short life that we must attribute that disregard of fatigue and imprudent expenditure of strength which hastened on the end.

It is but a poor comfort for those he has left behind to remember that his ambition was to a great extent realised, and that, though he was just on the point of undertaking new and important explorations, still he felt that already his name was

made, and that as long as any interest is felt in the question of Biblical investigation, it will be remembered with honour and esteem.

His acquaintance with Bible lands dates from the commencement of the Sinai Ordnance Survey. Of that expedition he was to have been a voluntary member, but circumstances detained him, and prevented his joining till the work was almost completed, and a severe attack of dysentery very nearly proved fatal at the outset of his career. His subsequent work in the Desert of the Wanderings in company with Professor Palmer, leading to important and interesting discoveries, is well known; as also his explorations in the Antilibanus, and the eastern deserts and Hauran, described in "Unexplored Syria." The value of these labours were fully appreciated by the Royal Geographical Society (of which he was a Fellow), and all other authorities capable of forming an opinion. Had he been able to complete these latter explorations, he would probably have known more of trans-Jordanic Palestine than any one now living.

On joining as a volunteer the Survey Expedition, he found himself suddenly called upon (in consequence of Captain Stewart's illness) to assume all the responsibilities and duties of a commander. Had he shrunk from the delicate and difficult position which a civilian has to occupy when in charge of trained soldiers, the Great Survey would have been a failure, and the success of this important work must always be attributable in great measure to his courage and tact. For six months, and those passed in the worst hill country in Palestine, at the very commencement of the work, when Europeans and natives were alike unused to the practical details, and unable to communicate together, Mr. Drake had to act as commander, guide, interpreter, and archæologist. The progress was extraordinary, and his firm and just management, tact, and acquaintance with the habits, prejudices, and character of the Syrians were advantages of which I have felt the benefit ever since the command devolved upon me.

Throughout the expedition he suffered much in health. A man less enthusiastic would have quitted Palestine, and perhaps escaped the sad fate which I cannot but attribute to want of due care for health and over-work and exposure at a time when rest and a good climate were indispensable. Bent as he was, however, on continuing the work he had begun, it was worse than useless to endeavour to persuade him to give it up. Soon after my arrival his liver was seriously affected by the trying work entailed

on us all in measuring the cheek base line. He was obliged to leave on a visit to Egypt, but it was not until he returned to England last spring that any marked improvement in his health took place. On his return in October, we all thought him looking stronger and better. Then came the most serious check our work ever sustained, of which little is known to others than members of the party. In November the terrible Jericho fever broke out in our camp at 'Ain el Sultán. In a few days no fewer than ten members of the party, including Mr. Drake, were struck down, and the anxiety of those who escaped was, as may be imagined, very great. A full day's journey (and it was by special Providence that we were not more) from a doctor, or from any source of supply, in a malarious climate, a desert, and surrounded by wild and hostile tribes, with most of the servants incapable, and the rest only kept from deserting us by the certainty of being shot down, the anxiety of the position was as trying as can well be imagined. The unexampled kindness of Dr. Chaplin and Mr. Neil, under the circumstances, is an honour to England. Though suffering himself, and quite unfit to be out of bed, the doctor mounted his horse, and accompanied by Mr. Neil, set out to come down to us at Jericho, and met us bringing up Mr. Drake in the litter. The hotel-keeper, Mr. Hornstein, at the risk of losing every one of his guests, took him in, and spared no pains to make him comfortable.

The English hospital was a refuge for our poor servants. The care and skill of Dr. Chaplin saved Mr. Drake's life, and probably that of others. His recovery was rapid, and his state of health seemed more satisfactory than it had been for a long time, but he was, I think, quite unaware of the extreme danger he had gone through. I found six months later that he had never known how Dr. Chaplin, suffering himself most cruelly, had watched with me a whole night of delirium, hardly expecting that he would live till morning. We both felt at the time that he ought on his recovery to leave the country, and I shall always regret that I did not represent this more strongly to the Committee, but that recovery was so rapid, and apparently so satisfactory, that it justified us in hoping he might be able to continue the work.

I have enlarged on these circumstances, thinking it might be some consolation to his friends to know that all care was taken of him in his first illness, whence they may judge that he was equally well cared for and attended during his last.

The survey of the Jordan valley was resumed. The exposure

and hardship were greater than anything we had before endured. For ten days we drank brackish water, and for nearly all the time we were subject to alternations of extreme heat and cold, snow, rain, and unusual atmospheric pressure. The whole party was much exhausted, although consisting of men beyond the average in strength and power of endurance. It was true that Mr. Drake was far more cautious and saving of his strength than formerly, but he was unable to escape the effects of rain and malaria.

On leaving the country I had felt some apprehensions of the return of the fever in summer, and written to his friends at Damascus, where I expected him to be, warning them not to allow him to journey alone in June—a time when he usually suffered from low fever. When the news arrived that he had been seized, I could not but feel thankful that he was still in Jerusalem, knowing that the medical care he would get there was far superior to any in other parts of Palestine. In the face of such complications, however, as followed rapidly, no medical skill could, however, be of use.

Of Mr. Drake's personal character, it will not become a younger man to speak. I always felt the comfort of his experience and his just and honourable dealing. His fitness for the work was in some respects peculiar, and he may be best judged by the fact, that whilst travelling in company with men of very various disposition and ability, he never complicated the difficulties of work by personal quarrels, and was well spoken of by all. His excellent colloquial knowledge of Arabic, no less than his fine figure and skill in all exercises, made him unusually respected by the Arabs and native authorities. His justice, integrity, and firmness were qualities invaluable in the East, and his good-nature and gentlemanly feeling enabled us for two long years of trying work, in a delicate relative position, to live together, almost unseparated, without so much as a single unkind word passing between us.

CLAUDE R. CONDER, Lieut. R.E.

# THE JERUSALEM RESEARCHES.

LETTERS FROM M. CLERMONT-GANNEAU.

## VII.

JERUSALEM, *March 5, 1874.*

IN one of my recent visits to the Haram, I remarked that in one or two places they had taken away some of the slabs covering the ground within the Sakhra : (1) before the gate of the cave ; (2) before the Eastern gate called *Bab en neby Daoud*. Ascertaining that on Saturday last they were going to dig at the second point, I went on that day to the Mosque, but unfortunately too late ; the excavation, insignificant (0·30 metre) in dimensions, was already finished and the hole filled up. Vexed at losing an opportunity which might never occur again, I succeeded in my entreaties that the excavation should be begun over again before my eyes. I chose a point different from the first, trying to get as near as possible to the rock. We attacked the soil again, 0·50 metre, S.S.E. of the angle of the south pillar placed between the eastern gate and the first circle of columns and pillars which surrounds the Sakhra properly so called.

Excavation  
within the  
Sakhra.

The excavation was pushed to a total depth of 0·90 metre, not counting the thickness of the upper slab. After a layer (0·30 metre) composed of greyish earth, mixed with stones and fragments of marble, a bed of cement was reached extremely compact and about 0·07 metre in thickness ; the material was very hard, and the pick struck fire against the fragments of stone which were mixed up with it. I gathered a specimen of this cement, which is grey in colour, and seems, like the Arabic cements, to be mixed with cinders and charcoal.


Immediately beneath this layer appears the red earth, the same as is to be seen in Jerusalem and its environs, in those places where there have been few inhabitants. We excavated in this earth for 0·33 metre more, till it was impossible to go any lower without making a regular excavation and exciting susceptibilities. The conclusions to be drawn from this little sounding are these : (1) There is no rock 0·90 metre below the surface at the point of examination, which might have been guessed beforehand, as, judging from the Sakhra itself, the rock must have about here a general inclination of west to east. (2) The existence of a layer of earth almost untouched. (3) Immediately above this earth a bed of cement, forming the general substratum of the edifice, and apparently of Arabic origin. (4.) A layer of earth between this and the surface slabs.

Fragments  
of inscrip-  
tions.

A number of Arabic texts, *neskhi*, flourishes, are daily being discovered in the interior of the Sakhra during the course of the works; many of these inscriptions are on plaques of marble which have been used in covering up the interior walls of the edifice, the bases of columns, sides of pillars, &c. Many of these texts are interesting from an epigraphic point of view, or for the history of the Haram. They prove in any case how many successive alterations the Mosque has undergone. Not only are these ancient materials which have been used in the first construction, there are also anterior Arabic materials used for subsequent modifications and alterations. Among these texts I remarked very fair specimens of Kursive writing: one in *neskhi* contains a part of the Sourati of the Coran called El Koursi; and the mention of a work executed by the orders of an Emir Zeyned-din, son of Aly, son of Abdallah, about the year 500 of the Hejira.

Bases of  
columns, &c.

We have been several times to the Mosque to study the bases of its pillars and columns uncovered, and the famous semicircular arca-ding of the external wall. M. Lecomte has made detailed drawings of our observations, which will reach you with this report. An important fact has been revealed by the fall of certain mosaics. It is the existence of a string course in stone in the interior, and nearly in the middle of the drum which supports the cupola. The profile of this string course appeared to M. Lecomte to resemble a mediæval profile of the 12th century. Here is a new element which appears now only to complicate still more the already obscure problem of the origin of the actual monument.

As for the semicircular arcade of the external wall, it is still very difficult to pronounce upon it. Up to the present, however, two things are quite certain: (1) The absence of the mediæval dressing on the blocks entering into the construction of the wall and the arches; (2) the existence on one of the blocks of a mason's mark of undetermined period, having this form  It is on the second pier left of the west door, and the third course above the leaden roofing.

Projected  
excavation  
within the  
Haram.

A work is about to be undertaken in the Haram, which I shall follow with the greatest attention. There has been found, it is said, in the wall of the Haram, an Arabic inscription, which states that by digging at the place where it was written a great quantity of stones will be found which will serve for repairs or reconstructions. Three years ago, following this indication, they sunk a shaft of some depth, since covered up, but which I have seen open. This excavation led to no result. The new director (*mémor*) sent from Constantinople to superintend all the Haram works is about to reopen this shaft. The work, in the Haram itself, may be of the greatest importance, and I shall follow it with the greatest care possible. The point chosen is a little south of bench mark 2387.7 of the Ordnance Survey map.

The Inscription  
on the  
inner  
stones.

The inscription spoken of above is on the exterior of the eastern wall at the height of the loopholes (second course, counting the battlements), about 133 metres north of the south-east angle. Observe that

at this place is a very sensible break in the continuity of the Arab wall, seeming to indicate a later repair; the line of junction is oblique, descending from south to north at an angle of about 45°. The inscription is as follows: "In this place are stones buried for the use of the Haram esh Sherif."

The writing is of the kind called *sulus*. The text presents in construction and orthography certain faults which seem to indicate a Turkish hand. It may be that this text was contemporary with the works executed in the reign of the Sultan Selim, who repaired the ramparts of the city. The first excavation undertaken under Kondret Bey on these indications had been placed immediately behind the inscription. The *mémoir* proposes to open it a little farther to the north, and, if necessary, to push a trench parallel to the wall. According to Captain Warren's map, we ought to light on the rock at a depth of about ten mètres. It remains to be seen whether the inscription is in its original place.

On going back to the Haram we examined a very fine base placed near the entrance of the magazine close to El Aksa, at the east. The lower face is entirely covered by a beautiful Arabic inscription in relief, the meaning of which I made out at once, to the great astonishment of my Mussulman companions. It relates the restoration or construction of a surrounding wall (*soûr*) of the city, or Haram, under the reign of the Sultan *El Melik el Mansour seif ed dên Gîlaoun es sâleh*. This sultan, seventh king of the Mameluke dynasty of the Baharites, reigned from 678 to 698 of the Hejira (1279—1290 A.D.)

Inscription on the building of the south-west wall.

The Arabic historian of Jerusalem, Mejr ed Dîn, mentions among the works executed by order of this sultan, A.H. 678, the reconstruction of the "roof" of the Mesjid el Aksa, on the south-west side, near the Mosque of the Prophets. Such, in fact, states the Arabic text published at Cairo. It is evident that the editors have made the mistake of writing *sagaf* for *sour*, *roof* for *wall*. This is clear (1) from the possible confusion of these two words in Arabic writing; (2) from the impossibility of speaking of the *roof* of the Mesjid el Aksa, the phrase meaning the whole Haram; (3) from the inscription which I have just quoted.

Rectification of a passage in Mejr ed Dîn.

Between the El Aksa and the Sakhra I observed, at the foot of the south staircase which leads to the platform, on the left, a fragment of a moulding with the mediæval dressing strongly marked. This *morceau*, which M. Lecomte will sketch on the first opportunity, is extremely interesting, because it furnishes us with a moulding belonging without possible doubt to the period of the Crusades, further specimens of which we shall doubtless find in edifices of date hitherto undetermined. In the Barrack wall I have found another, of which also we shall take a drawing.

Mediæval mouldings.

We have at length been enabled to examine closely the base of the arches hitherto hidden by a casing of marble, over the columns of the intermediary peristyle of the Kubbet es Sakhra. One of the external faces was stripped, and we obtained leave to mount a ladder and examine

The blocks surmounting the columns of the Kubbet es Sakhra.

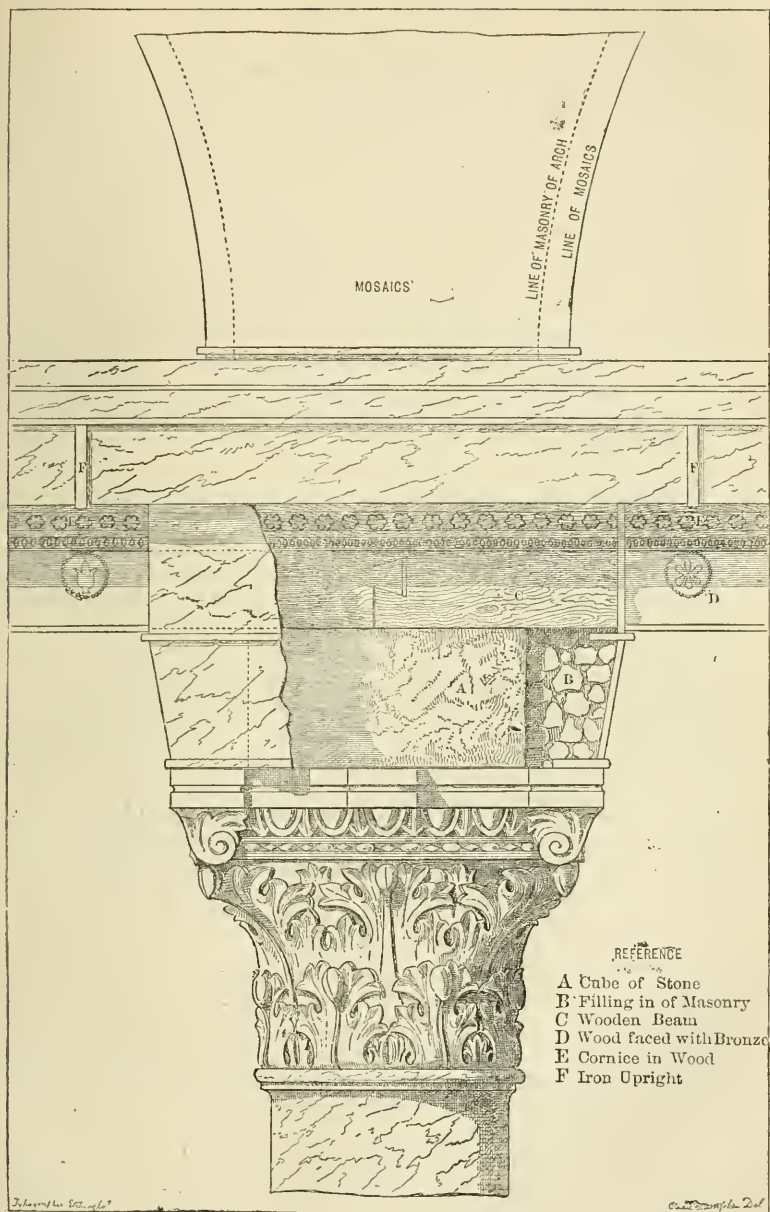
the capital closely. You will have a drawing of it; meantime here are a few words of description which will give an idea of the arrangement, to the knowledge of which archæologists attach great importance.

The capital of the column is surmounted by a cubical abacus, over which passes the beam which runs all round the edifice. This beam consisted of two pieces of wood, clamped by a dovetailed coupling. The point of junction is in the middle of the abacus. Upon the beam rest the abutments of the arches. It is evident that this part of the beam, now masked by the marble casing, was originally intended to be seen, because we found the ornamentation of the beam continuing under the marble. As for the abacus, it seems clear that it was always intended to be covered with some kind of ornamentation, for its bare surface and its rudeness would have made a disagreeable contrast with the richness of the general decoration.

As for the presence of the beam passing over the capitals, one can only remember the classical fact not long since mentioned by M. de Vogüé, in these terms:—"The presence of the wooden tiebeam is characteristic . . . it appears to be of Arab invention, for it is found in the greater number of early mosques, such as the Mosque of Amrou at Cairo, and the Mosque el Aksa, and has never been found, so far as I know, in any church of the fifth or sixth century." We have now to see what is hidden by the marble casing which surmounts the column of the interior perimeter. I hope to obtain equal facilities in this investigation.

Mosaics, &c.

It may be interesting to note here an observation that I have recently made, and which I have never seen anywhere else. The scaffolding now erected within the Kubbet es Sakhra has enabled me to examine closely the mosaics ornamenting the walls. I have ascertained that on many of the vertical walls in the interior of the Kubbet es Sakhra, the coloured and gilded little cubes of glass which produce together so marvellous an effect, are not sunk in the walls so that their faces are vertical, but are placed obliquely, so that the faces make an angle with the walls. This ingenious inclination is evidently intended to present their many-coloured facets at the most effective angle of incidence to the eye below. Such is the simple secret which produces the dazzling and magical effect of this decoration. Curiously, the same method has been followed in the construction of the splendid windows of the edifice. They consist of plaster cut into charming designs; in the holes so formed are fixed small pieces of coloured glass, arranged with exquisite taste. I have been able to examine a fragment of one of the window frames, and I observed that all these bits of glass are inserted obliquely, and not vertically, so as to overhang and meet the eye of the visitor at right angles, whence this charming brightness of colour. Perhaps this arrangement of the mosaics belongs to a certain known epoch, perhaps to the time of the construction of the windows, *i.e.*, the sixteenth century.



Bas-relief in  
marble re-  
presenting  
the tri-  
umphal  
entry of our  
Lord.

A bas-relief, very remarkable, comes from an Arab house situated near the Damascus Gate, and was found in the basement. One of the sides shows the mediæval dressing to which I have already called attention. This particularity furnishes us with our limit of date, the time of the Crusades, which is very likely, judging from the appearance of the work, to be its real date. Is it the work of a Byzantine artist, working perhaps for the Latin kings? The fragment belongs to a bas-relief representing the triumphal entry of Christ on the Day of Palms. Christ, clothed in a long tunic, with broad sleeves, in folds of classic form and execution, is sitting astride, not sideways, on the ass, which is walking straight on, and seen in profile. The head, which would seem to have been a three-quarters head, has unfortunately been destroyed, apparently by the Mussulmans; the foot is also broken. In the left hand Jesus holds the reins, and with the right hand, now disappeared, gives the benediction with the ordinary gesture, as is easily to be recognised by the movement of the right arm, half raised. It is a pity that this hand has been destroyed, as it would have been easy to see if the sculptor was under Latin or Greek influence, the position of the fingers in the Latin benediction being totally different to that in the Greek. The ass, which is covered with a cloth ornamented with rich embroidery, has also been decapitated by the same iconoclasts apparently. Nevertheless, it is impossible to hesitate on its identity, although the fine shape of the body might cause it to be taken for that of a horse. All doubt, however, is removed by the presence of the foal, which plays by the side of the mother, the head down in a pretty and truthful attitude, showing that the sculptor made a sincere study of nature.

Behind the group, on the right, are to be seen the remains of figures, mostly destroyed by the hammer; on the left are two other figures, clothed in flowing drapery, which have suffered less. The hinder part of the ass rests upon the framing.

The sculpture is in high relief, with attempts at shade effects, and a general inclination of the figures, showing that it was intended to be seen from below. Probably it was some door lintel, or decorative frieze, such as that which surmounts the entrance to the Church of St. John.

It is interesting to compare this subject with the same scene represented in the mosaics of the church at Bethlehem. Essential difference of style and composition exists between these two works. For example, at Bethlehem Christ is seated on the ass, but the foal is absent. These variations are the more curious, because, as has been remarked already (De Vogüé, "Eglises de la Terre Sainte," p. 96), the composition at Bethlehem is absolutely in conformity with the prescription of an ancient Byzantine "Guide of Painting," which contained detailed rules on the manner of treating different subjects.

The author of the mosaics of Bethlehem appear to have followed the nearly parallel narrations of St. John, St. Mark, and St. Luke, who only speak, the one of a young ass (*ὄναριον*), the other two of a colt (*πῶλον*). Our artist, on the other hand, seems inspired by St. Matthew.

The mosaist of Bethlehem, and the Byzantine school to which he belonged, took the words used by the Evangelists literally, representing Jesus *sitting*, and not astride upon the ass. It is hardly necessary to remark that this literal interpretation is hardly reasonable, for the Gospel of St. Mark uses the same term in speaking of an ass "whereon never man sat," the word there being evidently used in the ordinary sense of riding.

Besides, we may show by the Hebrew text of Zachariah ix. 9—"Behold thy King cometh unto thee . . . riding upon an ass, and a colt the foal of an ass," to which the Evangelists all four refer—that the normal method of riding is intended, for the word used is *rokeb*.

The interpretation adopted in our bas-relief, although it departs in appearance from the tradition usually followed, is thus in reality more exact and nearer the truth. The sculptor who thus set aside the Byzantine traditions belonged, perhaps, to another country, perhaps to another epoch.

The constant communications which I have with the Silwan people have brought to my knowledge a curious fact. Among the inhabitants of the village there are a hundred or so, domiciled for the most part in the lower quarter, and forming a group apart from the rest, called *Dhiäbiyé*, i.e., men of Dhiban. It appears that at some remote period a colony from the capital of King Mesha crossed the Jordan, and fixed itself at the gates of Jerusalem at Silwan. The memory of this migration is still preserved, and I am assured by the people themselves that many of their number are installed in other villages round Jerusalem.

Arab colony  
from J  
Dhiban  
settled at  
Silwan.

Passing the other day by the gate of St. Stephen (Bab Sitti Miriam), I remarked outside the city, in the wall, some mètres south of the gate, a fragment of Greek inscription which had escaped my attention up to that moment. No one had ever remarked it, although it is one of the most frequented spots in the place. It is on the sixth row of stones. The letters appear well formed, but it is so badly placed, and in such an unfavourable light, that I have only been able to make an imperfect copy. I will make a squeeze of it. Meantime, this is what I have made out:—

Greek in-  
scription  
embedded  
in the wall  
of the city.

C . . . O  
r . . .  
O r . . .  
π . . O C

The stone is placed on its side, so that the lines descend vertically. There is on the left the trace of a framework, which shows that we have the commencement of the text, which apparently consisted of four lines.

Another inscription in Mediæval Latin is unfortunately also incomplete, but Latin texts of Frank origin are so very rare at Jerusalem that I have thought it worth while to put it together as well as possible. You shall have a drawing of it made after a squeeze.

Mediæval  
Latin in-  
scription.

The inscription appears to have been cut at its two extremities, in order to obtain a block of size convenient for the use for which it was

adapted. It is, in fact, a step in the staircase of an Arab's house, near the Damascus Gate; the same house as that in which the bas-relief I have described above was found.

It is composed of seven lines, of which only the middle part remains, the beginning and the end having been sacrificed by the mason who utilised it. The letters are 0.19 mètre high; they are of Gothic form, and although roughly executed they appear to be contemporary with those of the sepulchral slab of *Philippus de Aubingni*, placed near the entrance of the Church of the Holy Sepulchre. This view is supported by the identity of the formulæ employed, which enables us to reconstruct a great portion of the mutilated inscription.

ETIO  
DE LA  
FRATER  
AROC H  
SANIM  
SC I

Comparing this with the inscription of *Philippus de Aubingni*, we find that the *et* of the first line is the end of the formula, "*Hic jacet*," probably preceded by the cross (+). Then comes the name of the person interred, beginning with I and O, or Q. We have a choice of names, such as *Iocelinus*, *Iordanus*, *Iosecerandus*, *Johannes*, &c. The second line began with part of the name, followed by *de la*, indicating the origin of the person, probably French, if the characters LA are the article, and not the commencement of the name of the place. We have numerous examples of the use of the proper name in the Latin, and the place in the vulgar tongue, as *Ricardus de Belmont*, *Iocelinus de Calmont*, &c.

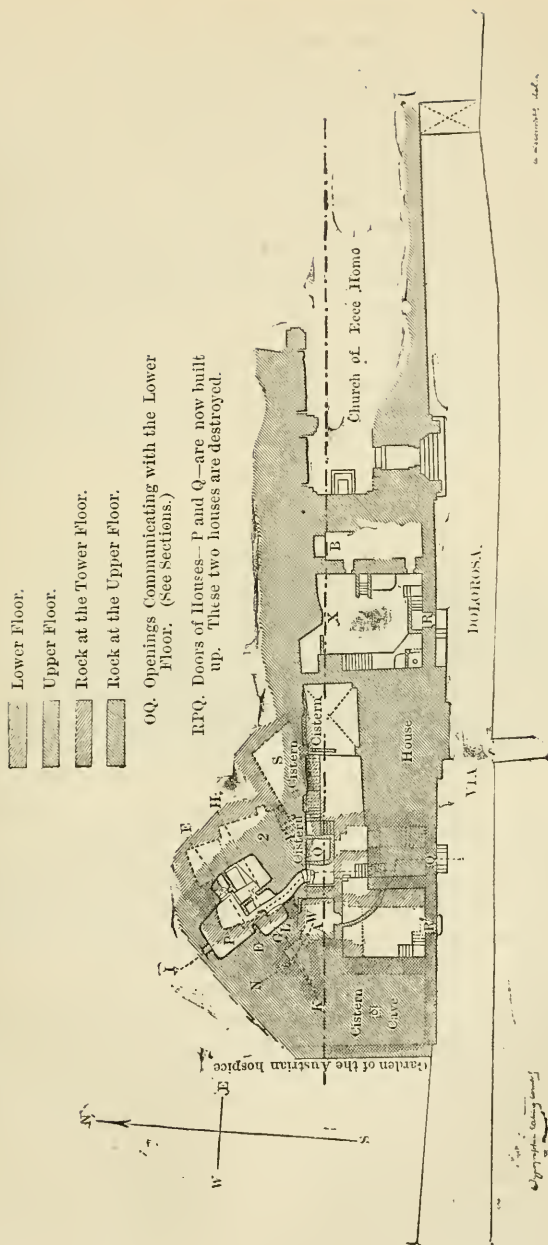
The third line begins with the name of the place, and shows by the word *frater* that the person spoken of belonged to some religious order. The fourth line gives A ROC H . . ., but the R may be a P. Perhaps it is the name of the order. In the fifth we have the word anim(a), certainly preceded by (cuju)s. In the sixth line we have part of (reque)scat i(n). The seventh line ought to have *pace*, followed by *amen*, of which there are traces.

Rock-cut  
chambers  
in the Via  
Dolorosa.

We can now forward you the plans and sections of the rock-cut chambers near the Ecce Homo Arch. The complicated arrangement of the chambers, and the accident which for some time kept us from getting access to them, has retarded the preparation of the plans.

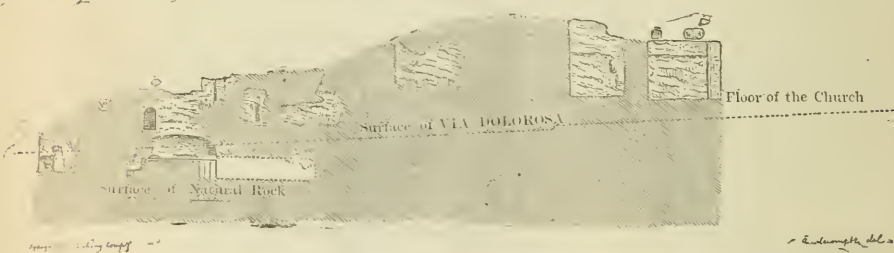
I have already sent you\* a detailed description of the place. I have now to add some remarks on certain new facts with relation to a point almost ignored. I have considered, in connection with this subject, the rock which is visible at the Church of the Ecce Homo, already known, because it has an intimate relation to the position of the well observed by us. We have thus a full development of the rocks in a line nearly 42 mètres in

\* *Quarterly Statement*, April 1874, p. 105.



length. If we consider this line generally on my plan, we observe that it lies in a direction sensibly constant, only at about the middle of its course it makes a sharp turn at an obtuse angle, after which it resumes its original orientation. This is important, because the line has been cut nearly everywhere with the pickaxe, and is not a natural formation. This cutting is most visible in the Ecce Homo Church, and is found again in the rock of the house R, and in that of the adjacent houses Q and R'. In the house Q it seems now that the cutting has suppressed one of the walls of the chamber cut in the rock S. This result is a valuable indication for the date of this chamber, and the group of those of which it forms a part, a date anterior to the period of the cutting of the rock. (The vestibule Y has undergone a similar excision.)

If, now, we turn to the general section, and particularly to the small section, we may easily follow the slope of the rock from east to west in the direction of the slope of the street. The passage, which now debouches into space, might originally have opened



upon a layer of rock which has now disappeared, owing to the same cause which has destroyed a wall in one of the chambers.

Another general remark. The normal axes of the chambers and the direction of the passage form acute and obtuse angles with the present face of the rock, which could not originally exist, for it would be contrary to all known usage up to the present day in that kind of excavation.

In the passage on the left may be remarked a broad "notch," apparently indicating that the workman wanted to rectify the sinuosity of the passage. The square opening made at the end of the chamber P seems to communicate with another chamber filled with earth, which I should very much like to dig. It is a question whether this opening is not the original entrance to the cave, and whether a passage has not been cut afterwards from the inside, to attach the chamber V directly with the exterior. I must add that the conjecture is rendered difficult by the configuration of the ground, as one makes it out, the chamber appearing to plunge into the depth of the hill. On this hypothesis, we should have to admit that the chamber P communicates with another

chamber by the square hole, and that the chamber filled with earth had its entrance communicating with the exterior by the west face. In that case, the real primitive entrance of the group of chambers would have to be sought to the east of the Austrian hospice, near the second A in the word Mahometan in the O. S. map. We may, in fact, admit, without too much temerity, that the side of the hill turns and faces the west. All this, however, is purely conjectural.

If we pass to the examination of the lower chambers, we shall make the following notes. The people of the house told us that the chamber Q was provided with a bench cut in the rock; it is impossible to ascertain the fact now as the place is filled with ordure to the ceiling. The wall of rock, which we saw in the third house, appears to be in the alignment of the extremity of the rock of the neighbouring house, Q; there is, between the two, a solution of continuity of only a few metres.

In this third house the rock had been also excavated to make a chamber, partly destroyed. A piece of the ceiling of this chamber has fallen (section K L) through some movement of the ground overloaded with houses, or an earthquake. Most likely the latter was the cause, for the wall of the chamber is cloven vertically.

If now we search for the origin of this rock-work and the period at which it was effected, we are reminded of what Josephus says about the fortress Antonia, *which was separated from the Hill Bezetha, not only naturally, but by means of a deep ditch cut so that the foundations of Antonia were not at the foot of the hill and, therefore, easy of access.* The same historian informs us, besides, that the second wall, starting from the Gennath Gate, joined Antonia, only circumscribing the northern region.

The second wall, then, evidently starting from Antonia, must have been directed to the west, and turned its face to the north. Now, during the first part, it was exposed to the same inconveniences as Antonia in being commanded by Bezetha. To the same evil the same remedy was applied—the rock was cut, or the moat of Antonia extended. Can we not see in the face of the rock cut by the pickaxe, which we found behind the houses, the counter-scarp of the prolonged moat, cut to protect, not Antonia, but the second wall? It was not necessary to prolong the moat beyond the point where is now the eastern wall of the garden of the Austrian hospice, for at this point the base of Bezetha seems, according to our observations, to turn to the north, forming one of the sides of the great valley from the Damascus Gate, which the second wall must necessarily have crossed. In the eastern flank of this valley were excavated chambers, belonging, perhaps, to a cemetery, of which those chambers found by us formed a portion. In that case these chambers, cut across by the moat and consequently older than it, were probably more ancient than the building of the second wall.

These facts are of extreme importance in helping us to find the second wall; it seems to me that it must have passed between the two streets called 'Tarik as Serai al Kadim' and 'Daraj as Serai' in the Ordnance Survey map. Now all the west part of this place is occupied by a large

The Second Wall and its ditch.

space of ground belonging to the Catholic Armenians, where I believe I could easily obtain permission to dig. Captain Warren has already sunk a shaft on this side in the street Harit el Wad, without results, but possibly he missed the wall by some few metres.

Tomb at  
Beit Sahur.

I resume my interrupted enumeration of our researches explained in the drawings sent off by the last mail.

I have only a word to add to my description of the sepulchre with a semicircle found at Wady Beit Sahur (No. 18). The form of the sarcophagus pointed out by me in the Haram (photograph D.) may be compared with the form of the trough of the first chamber, the inside of the sarcophagus being rounded at one end and square at the other. The sarcophagi coming from Jerusalem are generally square at their two extremities with a receptacle formed in one of the angles to support the head of the corpse.

Cemetery at  
Wady  
Yasoul.

I have already spoken of this valley, the name and direction of which are accurately given by Tobler (Jerusalem u. Seine Umgebungen II. 7). It lies at a few minutes' distance from the Holy City, and contains a vast cemetery, with many hundreds of sepulchres cut in the rock, which appears to have been a sort of *succursale* of the Jerusalem cemetery. We have visited a large number of the tombs, some of which are extremely important. As an illustration of the singular arrangement formed among them I may mention that sketched in plan No. 21, brought to light by our excavations.

Plate 19 represents a sepulchre. There is an *arcosolium* covering a bench in a lower chamber, which is connected with an upper chamber by the end of a loculus like an oven. On this bench is indicated by a light hollowing out the place where the head and shoulders of the corpse would lie. It is only the second example of this kind that I have found in the tombs round Jerusalem. Immediately below the bench and in the vertical wall were cut two little alcoves to receive bones. When we opened the tomb I found these alcoves and the four oven-like recesses still closed by slabs wedged in with small stones; they contained nothing but fragments of bones.

Plate No. 16 shows another tomb also excavated by our men, in which we remarked the following points: three little recesses, like those in the former, serving as depositories for bones, the third of them consisting of a small grave cut at the end of a loculus, and closed by two slabs of black stone with a layer of cement interposed; within were bones and the skull of an adult. In the wall at the end, above and a little to the left of the entrance of the central loculus, a *little cross carved*. In the corner of No. 5, on the bench, fragments of sarcophagi of well-known type; in the opposite corner (H) fragments of lamps in terra cotta: two of the recesses were furnished at the end and laterally with two boxes at right angles with them, one of which, still closed with a slab, contained fragments of bones. This tomb has certainly been used again, perhaps at the period when the cross was engraved.

Plate 17 reproduces the details of another tomb of greater importance, because it was partially inviolate.

The first chamber has nothing remarkable except the great irregularity of the loculi, and the strange deviation of one of them, which pierces the wall of a loculus of a neighbouring chamber at the same level. In the middle of this first chamber, furnished with a bench, is a rectangular grave, through the pierced wall of which is access to a little lower chamber. The entrance was closed by a slab. It is very small, and has an ornamentation quite different to that below which it extends. The ceiling forms a low arch; right and left stand two walls cut in the rock, and forming two troughs, each of which is divided into two parts, one by a diaphragm of rock, the other by a slab placed vertically. Between these two troughs is a kind of empty passage, almost entirely filled with earth; the lid of a little sarcophagus in soft stone placed transversely towards one of the two extremities, forms a small partition. Three of these "boxes," G, H, P, contained the bones of at least three skeletons.

To the right of the entrance had been cut in the vertical wall a very small recess, where we found an ossuary of soft stone (F) without a lid, filled with bones; sides bare: made to be closed with a groove; with feet; the lid forming the partition I fits it perfectly.

To the left of the entrance is hollowed out another recess, divided into two parts by the rock forming its diaphragm. In the left division stood an ordinary ossuary, placed parallel to the diaphragm; no feet or grooves; bare sides; the lid broken by the fall of a piece of rock; bones in it. At the side of this ossuary, and at right angles with it, another ossuary, B; bare sides; no feet; lid with grooves; bones, among others two skulls placed on the surface, at the two ends of the ossuary.

In the right division, ossuary C, parallel to the diaphragm, ornamented with roses and an elegant framework of traditional type; ornamented sides relieved with red; feet; flat lid; no leafwork; on the small face a Hebrew inscription in *graffito*; bones. Behind this ossuary and in the same direction, is the fifth ossuary, D; a rose simply designed; feet; leafwork for lid; no lid; bones. The lid has been used to raise at the side an upright partition forming a new recess, serving for an ossuary, and containing a number of bones. Without doubt this unviolated chamber has been used a second time, at a very ancient period; the adaptation of two of the lids into partitions serves alone to show it. We took great care in collecting together the bones of the earlier occupants of the sepulchre. These sarcophagi are undoubtedly more ancient than the second use of the tomb, which agrees perfectly with the existence on one of them of a Hebrew inscription. In my next report I will give you the inscription. The absence of any glass or pottery is very remarkable.

Ossuary,  
ornamented  
with  
Hebrew  
inscription.

## VIII.

JERUSALEM, *March 19, 1874.*

I have paid a second visit to the Greek inscription which I had previously observed in the wall of the city, quite close to the gate of Saint

Greek inscription in the wall of the city.

Stephen spoken of in my last report. I tried to take a squeeze, but there was so high a wind that I failed to get anything good; at the same time, thanks to a ladder, I was able to examine the text closely and to take an exact copy, after carefully cleaning it. The following is a reproduction of the inscriptions made by the aid of the copy and the squeeze:—

ΕΚΟΙΙ  
ΥΠΑΤ  
ΟΤΙΜ  
+ ΠΙΟC

The stone, cleaned of the mortar which plastered it up, showed a little cross engraved at the beginning of, and a little above, the fourth line. The inscription, then, is Christian. It appears, also, to be a funerary inscription, judging from the first word, which we may restore as *ἐκοιμήθη* "here lies," a word often recurring in sepulchral formulæ of Christian times, from which is, of course, derived the word *κοιμητήριον* cemetery.

The word which begins the second line, ΥΠΑΤ, may mention a consul or proconsul (*πατος*), or it may be the name of the deceased person. ΟΤΙΜ in the third line may be separated into *ου*, the genitive termination, and *ιμ* the beginning of a name, or it may be the Greek way of writing a Latin word beginning with *vim*. In the fourth line the second letter is perhaps an R, and the fourth an S or an E. In the former case we have the preposition *προς*.

A fellah of Abu Gosh has just told me of an inscription between Kubeibeh and Tell el Gezer, not far from Ain Yardé. He showed me some letters rudely copied by him, but it was easy to recognise the characters. I made out ΑΑΙΚΙΟΝ, perhaps Αδικίου (?) I propose to visit the place and see it.

I gathered from the same fellah further information about the *Fenich*, in whom I proposed, some years ago, in a note sent to the Institute, the Philistines. The Fenich king, or the King of the Fenich, had his summer residence at Souba, and his winter residence at Rathoun or Latroun. He had several brothers, one of whom lived at Sara in summer and at Beit Alub in winter; another at Beit Our in summer and El Bourdj in winter; another at Beit Jibrin, &c. I shall, perhaps, return to this common popular legend of the Fenich, to which I have been the first to call attention.

This resident of Abu Gosh told me that his village, Kuryet el Enab, was the Kuryet *par excellence*, called so without any other qualifying name. He told me, besides, of a place not far from Yalo called Ηέρché, which means forests; one cannot help being struck by the singular resemblance of this word with the Hebrew Hareth, the name of the forest which served as a refuge for David (1 Sam. xxii. 5, "Then David departed and came into the forest of Hareth.") The *shin* and the *t* are constantly interchanged in Hebrew and in Arabic; the other letters are identical. If it is not the Biblical Hareth, there would be

Breck inscription near Ain Yardé.

The Legend of the Fenich.

Kuryet.

The Forest of Hareth.

nothing impossible in its being that which passed for it in the time of Eusebius and St. Jerome, for the Onomasticon places an Arat, which it identifies with Arith, David's place of refuge, west of Jerusalem.

Perhaps we might connect with this place the name of Mount Heres of Judges i. 35—"The Amorites would dwell in Mount Heres in Aijalon, and in Shaalbim"—shown as occupied by the Amorites, and whence it seems that Aijalon and Shaalbim were also, according to the literal tenor of the verse. I know that some think that "Mount Heres" is really *Irchemes, City of the sun*, but this supposition is quite gratuitous and may easily be refuted. The question is too complicated for me to solve it *en passant*. I hope to return to it.

The same peasant told me that there was at Amwas (*Emmaus*) a well now closed, whence formerly the plague issued to spread over all the world; this well is called *Bir et taoun, the well of the plague*. It is easy to find the origin of this tradition, which has a historical foundation. The terrible epidemic which desolated the Mussulman army after the conquest of Syria by the lieutenants of Omar, of which mention is so frequently made in the chronicles of Arab historians, is called by them the Plague of Emmaus, probably because the first cases broke out there. To localise the birth of the scourge, and to make it spring from a well, is but one step.

The Well of the Plague at Amwas.

I had already ascertained the existence of a fountain named Ain Nini, at Amwas. My fellah confirmed the fact. May we recognise in the name a truncated echo of the old word Nicopolis?

Ain Nini.

There has been, probably, some confusion in the publication of these travelling notes, written apparently at different periods and in different places. It is desirable that the names belonging to each region should be classified and grouped, in the interest of future explorers east of Jordan.

Permit me to insert in my report certain observations which have been suggested to me by reading over again a list of names published in the *Quarterly Statement* of July, 1872. It is a list collected by Captain Warren, and examined by MM. Sandreczki and Palmer. The places are given as east of Jordan. In fact, the first pages (123—164) appear to belong to this region. I will add as well *Jebel Atarus*, written *Atrud'*—the *Ataroth* of the Moabite Stone—and mentioned immediately before *Zuka Main* and *Moudjib*. But at page 144 we leave the trans-Jordanic country, and get an enumeration of places belonging to the environs of Jericho. Again, at page 167 we are transported to the west of Jerusalem, to judge by the juxtaposition of such names as *Deit Atab*, *Saïde*, *Soba*, *Neby Danyal*, etc.\*

Observations on the list of places east of the Jordan, published in the *Quarterly Statement*, July, 1872.

Certain Arabs of the city, fired with archaeological ardour by my recommendations, have just extracted from a tomb in the neighbourhood of Jerusalem four ossuaries of ordinary type in soft limestone, three being ornamented with roses. One of them, without roses, bears on the edge

Newly-found ossuaries with Greek and Hebrew inscriptions.

\* M. Ganneau's remark is correct. On republishing these lists they will be properly separated.

of one of its faces the name ATIFONA, which is, probably, the equivalent of Ἀντιγόνη. Is the omission of the N the fault of the engraver? I should be tempted to attribute it rather to a voluntary suppression, the result of a common custom in Jewish orthography. The assimilation of the letter *n* with that which follows it is a constant fact in Hebrew. In virtue of this phonetic law, for instance, we write *bat* for *bant*, *benet*, *daughter*. It would not be extraordinary if this, an organic law of the language, were applied to proper names borrowed from the Greek. I have already\* pointed out a very remarkable instance, for the letter *r*, in the Hebrew transcription of Bennigi for Berniki (Veronica). The word before us may have undergone exactly the same transformation, only it would have been in conformity with the Hebrew usage to write ATTIFONA; the *n*, which disappears, would be replaced by a double *t*. The name of Antigone was extensively used by the Hellenising Jews. The regular form is ANTIFONOC, but we find also ANTIFONA, for example, in the monument of Patron (Greek Inscriptions of the Louvre, No. 240), where in a group of eight names figures an ANTIFONA immediately after a ΜΑΛΧΙΨΗ (The last name has an unmistakably Semitic appearance, and these two persons were very probably of Turkish extraction). ANTIFONA is, perhaps, the feminine form of ANTIFONOC, and in the monument of Patron as well as on our own ossuary we have two women. The Hellenising Jews, however, affected the genitives in *alpha* for many masculine names, which they brought to the termination *as* in the nominative, as Ἀρτεμᾶς, Θεοδᾶς, Κλεοπᾶς, for Ἀρτεμίδωρος, Θεόδωρος, Κλεόπατρος. It is true that this systematic alteration was in general preceded by a contraction which we do not find in Ἀντιγόνα.

The second ossuary bears on the upper part of its long side, which is ornamented in characters legible but more cursive than those of the preceding, the name ΕΥΤΡΑΠΕΛΟΥ in the genitive. I do not know if the adjective εὐτράπελος (*versatile, gay, clever*) has ever before been met with in a proper name. As it is of two genders it is difficult to say whether the name belongs to a man or a woman, most likely the former. It is probably the translation of some Hebrew name having the same signification, and it makes us think of the names *Adna*, *Adnah*, *Adin*, *Adino*, etc.

Elashah.

The third ossuary has on the back face, opposite to the ornamented side, a graffito in square Hebrew characters, broadly traced by means of a point which appears to have been notched. The letters, though cursive, are written by a sure and practised hand: they read *Elashah*. The name, which signifies literally "created by El," is borne by several persons in the Bible, notably by a priest who in the time of Esdras had married a Gentile woman (Ezra x. 22). Another of the same name was sent by Zedekiah to Nebuchadnezzar at Babylon (Jer. xxix. 3). The characters, as in writing, are uniformly inclined to the right. The "lamed" is formed by a long *haste* without a hook. I have already

\* "Nouveaux ossuaires Juifs." A *mémoire* read before the Academy of Inscriptions, and published in the *Revue Archéologique*, 1873.

found several instances of this form used in epigraphic Hebrew. On one of the small faces of the same ossuary is engraved another Hebrew inscription much less easy to make out. The first letter is a long vertical stroke like the *lamed* of the preceding: then comes a complicated group which appears to be formed by the combination of two characters. There are the complete elements of an *aleph*; but this letter once pulled out, it is very difficult to do anything with the remaining strokes;—a tsade? a teth? If we admit, on the other hand, that there is a stroke common to the two characters, this complexity resolves itself into an *aleph* + *chin*. As to the last letter, it appears, from its prolongation below the line, to be a *nun* rather than a *lamed*. None of these probabilities give us very happy results, and I do not very well see, for the moment, how the word is to be read.

We have not been able to take squeezes of these texts, but have contented ourselves with the sketches (Pl. 33, B C D E) forwarded herewith. The proprietors of the ossuaries have the most extravagant ideas of their value.

The Bedouin legend of Joshua, given in a previous report (p. 87), says that the pagans of Jericho were finished off by wasps sent from heaven. This is entirely Biblical, and reminds us strikingly of a passage in the Wisdom of Solomon, xii. 8, in which the writer is speaking of the Canaanites and their sanguinary rites. "Nevertheless, even those thou sparedst as men, and didst send wasps, forerunners of thine hosts, to destroy them little by little." And we may compare the passage (Deut. i. 44), "The Amorites, which dwelt in that mountain, came out against you, and chased you, as bees do, and destroyed you in Seir, even unto Hormah." Not only the image, but the words also, are identical in the Hebrew and the Bedouin story. To the same order of ideas belongs the passage in Isaiah (vii. 18)—"It shall come to pass in that day, that the Lord shall hiss for the fly that is in the uttermost part of the rivers of Egypt, and for the bee that is in the land of Assyria"—and that in Ps. cxviii. 12, "They compassed me about like bees." The Hebrew word *deber*, derived from the same root, signifies extermination, and was used particularly for the plague, which attaches itself by preference to armies. The Arabic word *dabra* applies especially to the flight of a defeated army. It is very possible that these different significations, sprung from the same root, are connected with each other by the metaphorical bond which I have thought it best to explain.

At last we are able to send you the results of our examination of the balustrade of the Kubbet es Sakhra, and of a certain number of the bases belonging to the columns of the edifice. This work has cost a great deal of time, and has been necessarily delayed. We have at least the satisfaction of forwarding precise and definite information on these important parts of the mosque, only recently discovered and already beginning to disappear. With the photograph you have already received, and the five plates sent with this (Nos. 28 to 32), containing M. Lecomte's drawings, you will be able to attack with profit the interesting questions

The tradition of the wasps.

Kubbet es Sakhra.

raised by these unlooked-for facts, facts which may throw precious light upon the much disputed origin of this monument.

Bases of the  
columns in  
interior.

See Plate 31. During the course of the repairs several columns of the intermedia peristyle of the Kubbet es Sakhra have been laid bare by the removal of the marble casing which covered up the base. One of these columns has even had its abacus partially exposed, as I stated in my previous report. M. Lecomte will probably be able to send a drawing of it by the next mail.

By reference to Plate 2 of the Ordnance Survey the positions of the columns examined can be easily ascertained: A, column S. of the S.E. face; B, column N. of the same face; C, column S. of the E. face; E, column N. of the same face; F, column N. of the N.E. face; I, column of the S. face, represents a column and a base, having already undergone a restoration which will very soon cover up all the preceding.

The other bases of the intermediary peristyle have not yet been stripped of their old covering; as to that of the interior perimeter none has yet been touched. We wait impatiently for the moment when they will undergo this operation.

A glance at the drawings will show the form of their bases better than any description. It suffices to show one positive fact: that they are heterogeneous. We cannot certainly deny that there is a great resemblance in the profiles A, B, C, if we only consider form; but the proportions, sensibly different for each of these three bases, do not permit us to refer them to a single type. Besides, they vary in every case absolutely from the base E, as much in the dimensions as in the disposition of the mouldings. Finally, the marble in which they are cut is not of the same kind for each.

The aspect of the bases fully confirms (what the variety of modules in the columns above them might teach us) the opinion of those who see in the primitive building ancient materials from various sources used over again. This use, which seems very improbable in an ancient work, even of late period, is on the contrary quite in accordance with Arab customs. It is clear that if the bases and columns, whatever their absolute age,\* had been specially made for the Kubbet es Sakhra, they would all be alike. The builders would have no interest in seeking for the absence of symmetry, which shows itself not only in the variation of profile in the bases, but also in differences of thickness and height in the shafts. No caprice, no supposed intention, can account for the last and grave irregularity which the sketches show. It was so striking that it fully justifies the adaptation of these false bases, which are at least regular, formed of marble slabs; it is very probable that from the very beginning the deformities of the halting columns had been disguised by

\* This absolute age is difficult to determine, for it is dangerous to apply to Palestine, still so little known, rules exact, perhaps, for other places. M. Lecomte thinks that the form of these bases might go back to the sixth century in the East, and come down as far as the tenth in certain parts of the West (Lombardy, for example).

this dress of marble, and that this remedy is as old as the evil. The value of this fact is proved when one reflects that these bases and these heteroclite columns support a wall ornamented with mosaics, dated from the year 72 of the Hegira (A.D. 691), that is, the very year of the first construction of the Arab edifice.

Plate 29. Bases of exterior columns. To complete this group of bases, <sup>Bases of exterior columns.</sup> M. Lecomte has made notes of three others, which are found outside the building, to the right of the east and north porches (the gate Neby Daoud, and that of Paradise). We know that these porches have been added to the building, and are not an integral part of it. Consequently, we cannot draw any conclusions, in the sense of the preceding, from the aspect of these bases. Nevertheless, they deserve, by their singularity, to be brought to the attention of architects.

G is on the north side, and H on the south of the eastern gate (Ordinance Survey, Plate II).

D is on the west side of the north door.

They are in one block, and show a bastard profile, formed by mouldings, which are complicated and do not belong to any determined category. They present one curious detail, on which M. Lecomte rightly insists, because it may put us on the path of their origin. The higher part of the base surmounting the pedestal has one of its faces lightly curved, as the sketch of the base G shows, in which the *tore débordé* on the vertical face of the plinth. These bases, although different in detail, appear to belong to one building, and the same part of the building, perhaps circular.

Plates 28, 29, and 30, give the *ensemble* and the details of the exterior wall of the Kubbet stripped of its tiles.

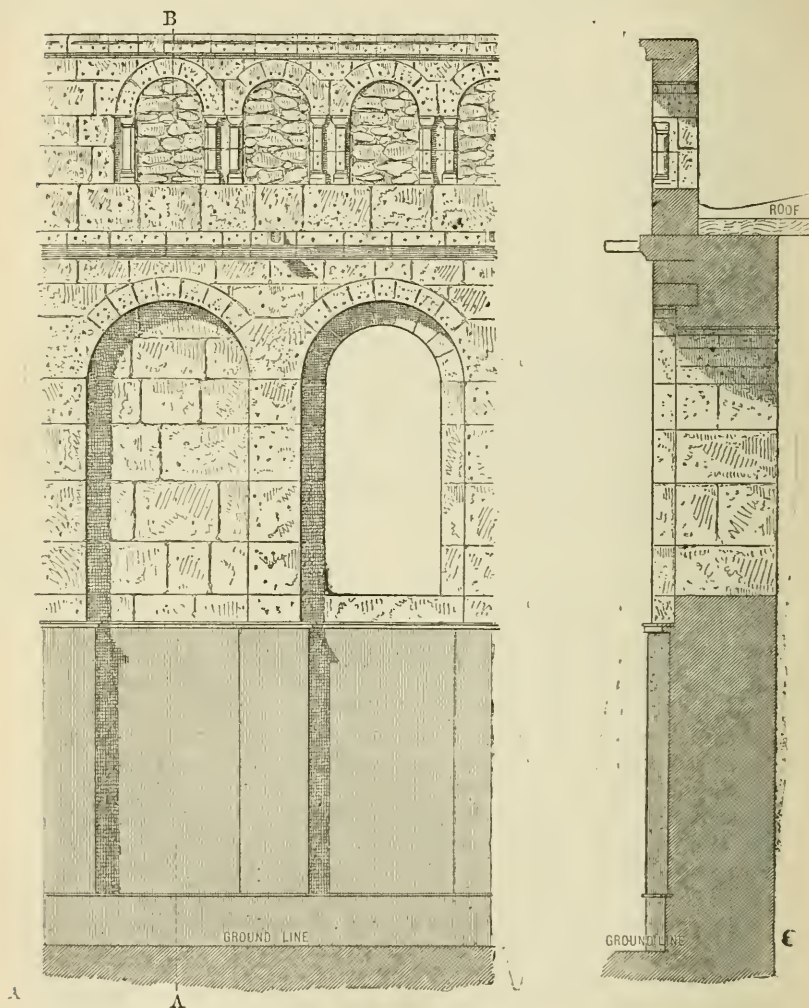
Arcades of the external wall of the Kubbet es Sakhra

The elevation on the scale of 1-100th shows two of the sides of the octagon, the west and the south-west. At the right extremity of the south-west side has been shown a portion of the tile covering, to show the way in which this interesting and unsuspected arrangement was masked. If we begin by studying this latter face, we shall remark that the wall is pierced by seven high and narrow semicircular arches (a fact already known), of which the upper half forms the bay of the windows lighting the interior. The lower half is solid, and covered with a plating of marble; the bays of the two arches at the extremities are blind, and not blinded, as the arrangement shows. Above the great arches runs a projecting band, which gives passage to six leaden gargoyles, by which the rain-water runs out above the six piers. This band is surmounted by a high course, which supports a series of small semicircular arches, resting on *colonnettes* grouped two and two.

These arches, of which there are thirteen on each of the two sides seen, have been closed *subsequently* to their construction. In fact, (1) the side of the wall which fills them up is in the same plane as the general face of the wall and the cutting of the capitals of the columns; (2) the columns are in fact part covered up by the filling in; (3) the filling in is effected by stones quite different from the rest of the building; (4) one of the arches

in the west front has been opened, and has given evidence that it was originally destined to be always so.

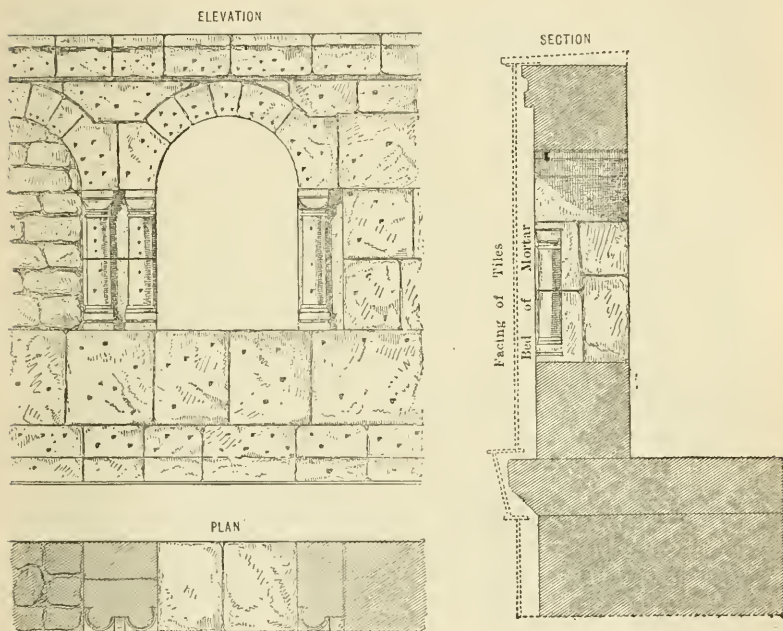
Lastly, immediately above the little arcades, at a tangent to their extrados, runs a terminal cornice, the profile of which is extremely difficult to arrive at, so much has it suffered.



The western face shows the same arrangement. We remark only that the last of the higher arches on the right extremity has been opened during the works, and that the great central arch which serves as the door

is broader than the six other arches. This breadth has been secured by the narrowing of the bays, the breadth of the piers remaining sensibly the same. The proportions of the higher arches remaining unaltered, there results a general difference between the west and the south-west faces; in the latter the higher arches are calculated in such a manner that their axis, two by two, corresponds with the axis of the arches below, if we count 1, 3, 5, 7, 9, 11, 13; with the axis of the piers if we count 2, 4, 6, 8, 10, 12. In the west face, on the other hand, this correspondence does not exist.

The drawing represents in stippling the projection of the porch, which



is supposed to have been taken away to show the original entrance. The surface of the blocks of the whole construction has a good deal suffered. It is, besides covered with holes, serving to fix the casing which covered it. As a result, the dressing (tool marks) has almost wholly disappeared; we have, however, been able to ascertain that the dressing is not that which I have shown in a previous report (see p. 136) to be mediæval. The only lapidary sign which we have noticed is one spoken of in my last report (p. 136); it is engraved on the third course of stones, below the left abutment of the third great arch of the western face, starting from the left. It is, as may be seen from the copy of it in Plate 28, too

indeterminate in form to permit us to attach it to one epoch rather than another.

Plate No. 29 represents the detail of the opened arch, and plate No. 30 gives the details of the columns, base, and capital, in full scale.

It is more than probable that the six other faces of the octagonal wall, still concealed by the tiles, would show exactly the same respective disposition as these two, if they were also stripped.

Starting from the band, the wall in which the higher arches are built is much less thick than the great wall on which it rests; this appears to indicate that it has originally been treated as a lighter construction, not having so much to support.

The existence of these arches running all round the monument reveals to us a previous state very different to the present aspect, and raises curious historical questions.

Above all, we should take account of two essential facts: (1) the arches are semicircular; (2) they were originally destined to remain open.

This fact established, if we try to determine the date of this building exclusively by the aid of technical considerations, we shall be much embarrassed. We may nevertheless hold for certain that the whole wall, from the higher arches to the *half of the lower arches*—that is to say, in the whole of its height which has been exposed—is, in spite of the differences of thickness, of homogeneous construction, and can have only one date. As for the part below it is difficult to pronounce. The casing of marble hides the true wall, except at the right feet of the gate of the western face, where it seems to show that the wall is entirely the same from the top to the bottom.

Besides the absolute age of the construction, it remains to fix the period of the transformation which it subsequently underwent, and which led to the stopping up of the upper arches. It is evident that the transformation is at least contemporaneous with the decoration of the monument by means of the tiles placed upon the wall: the beautiful *sourate* of the Coran (Yasin) in white letters on a blue ground, which runs all round the eight faces of the octagon, passes away nearly in the middle of the arches *d'en haut*. Although the employment of these tiles, called *Kechany*, is of different dates, there is a general agreement in fixing the first application of them in the sixteenth century. It is easy to understand that the decorators, in trying to get as large a surface as possible to cover with their enamelled tiles, thought of gaining this surface at the expense of these closed arches, which had perhaps a long time before lost their *natural use*, and which were treated as a higher prolongation of the wall.

Porches and galleries of the *Templum Domini* in the time of the Crusaders.

What was this natural use? To answer this question we must go back six centuries, to the time of the Latin kingdom of Jerusalem. We have several descriptions of the *Templum Domini*, made by contemporary authors. Among these descriptions there are none more exact and more detailed than that of John of Wirzburg. Unfortunately, I have not with me the original text, and I quote from the partial translations of

Tohler and De Vogüé the following important passage: "Between the external wall (pierced by four doors and by windows) . . . and the interior columns (12 + 4) supporting the interior wall, less broad, higher, and pierced by twelve windows, there is a row of sixteen columns and eight pillars. This circle of columns supports a roof which joins the interior to the exterior wall, and a ceiling ornamented with beautiful *caissons*. The roof is surrounded by a continuous gallery, with pipes of lead to carry off the rain water." This description applies admirably to the monument in its present state, and proves how few were the essential modifications which the *Kubbet es Sakhra* has undergone since it ceased to be the *Templum Domini*.

As to the valuable detail which terminates the description of John of Wirzburg, it appears to me to exactly correspond with the description brought to light by the repairs. Here is Tohler's translation, in his own words: "Am unterm Dache war ein Rundgang zum Lustwandel und bleierne Röhren schenkten das Regenwasser aus." The lower roof is that properly so called in opposition to the cupola; the *Rundgang zum Lustwandel* is a gallery running round.

There is no possible doubt our arches are nothing else than a little portico surrounding this gallery; the inclined roof would, at its lower end, approach the horizontal, or, at least, stop suddenly to permit a passage, which would not need to be very broad. The breadth of the lower wall (1 metre, plate 28, section A.D.) is of itself sufficient. A spout and leaden pipes, corresponding with the present gargoyles, would suffice for the rain-water to pass away.

A man standing upright in the internal wall is just able to look without by the bays of these arches, whose height, measured from the summit of the arch to the base represented by the great wall, is at least two metres.

It is not necessary to remark how this explanation accounts for the existence, and justifies the utility of this little portico, which, later on, closed and transformed into a wall, seemed to have no reason at all for existence, and gave to the right faces of the octagon the unpleasing appearance of eight panels cut out in cardboard. Unfortunately, the repairs follow the same error, and this light colonnade, exposed for one moment, will again be transformed into a massive wall, this time not even having the excuse of bearing the elegant fayence of Soliman.

Henceforth we may hold for certain that such was the disposition of the *Templum Domini*. I will add that we may see a vague but real confirmation in the reproduction of this edifice which figures on the seal of the Templars; there are clearly to be distinguished two rows of bays superposed.

This gallery, adorned with porticos still in use at the time of the Crusaders, the traces of which are now wholly lost—did it exist before their time? I think that we may, without hesitation, reply that it did, for plenty of reasons: the absence of mediæval dressing, the use of the semi-circle, the historical certainty that the Crusaders have never interfered

Disposition before the time of the Crusaders.

with the work, as a whole, of the Khubbet es Sakhra, the homogeneous nature of the arcade and the wall which supports it.

To these general reasons one more precise may be added. A Persian author, Nasir ibn Khosrou, who visited the Khubbet es Sakhra in the year 438 of the Hegira, that is to say, some years before the first Crusade, describing the exterior wall of the Khubbet, says that it was 20 "yards" high and 33 long, on each side of the octagon. I have not the original here, and forget what was the exact measure called by the English translator, Major A. R. Fuller, a yard, consequently I do not know the real dimensions expressed by the author. At any rate, the proportion of height to breadth was as 20 : 33. Now these dimensions are actually 12 and 27 metres. In order that the ratio of Nasir's dimensions should be as 1 : 2, there wants 7-66ths; in order that the ratio of the actual dimensions should be as 1 : 2 there wants 1-18. Now, the difference between 1-18 and 7-66 is only 5-99, a difference so small that we may neglect it, and conclude in consequence that the wall before the Crusades was the same height as it is now. And we have seen above that it may be considered as produced at a single effort.

As to the period which extends between this epoch and that of the *first construction*, the field is still open to conjectures as to what concerns this part of the monument.

If we wanted to find examples of analogous dispositions we might, as M. Lecomte suggests, find the *point de départ* in certain edifices of central Syria, towards the fifth or sixth century. As to relations with other places, we might multiply them, but without great advantage to the chronological elucidation of the special question which occupies us.

I have other and important observations which the repairs in the Haram have enabled me to make. These bear upon the works executed by the Crusaders in the sacred enclosure; but time presses, and I must defer them to the next mail.

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## IX.

JERUSALEM, April 19, 1874.

Layer of  
Flint Imple-  
ments north  
of Jerusa-  
lem.

IF, leaving the place called *El Mesharif* to the north of Jerusalem on the Nablus road, the name of which is the equivalent of Scopus (see my preceding reports), you turn to the east, you find at about two hundred metres' distance certain mounds or hills called by the fellahin *Rujm el B'hâmé*, literally, "the heap of the animal." The thing that gives particular interest to these hills is, that they are entirely composed of a prodigious quantity of flint chippings.

We have only as yet devoted one visit—that very rapid and necessarily superficial; but it results from this first examination that these mounds of elongated form, and representing thousands of actual metres, ought to be thoroughly explored. How to explain this enormous mass of flint

broken up small? A few steps farther on crops up the very rock from which these fragments come. With what object did they cut up the rock into these tiny pieces? The collection in heaps may be explained: it was perhaps done to clear the ground and to facilitate cultivation. But how to explain the formation of the fragments? I thought at once, and I am still tempted to think, that we have here a workshop of flint implements. The existence of tools and arms in flint at different parts of Palestine is a fact beyond all doubt. It is enough to recall the authentic finds at Beit Sahur, near Bethlehem, and at Gezer. We may note as well that the flints from both these localities, far apart from each other, are, as regards form, identically the same; a fact which would lead us to suppose that the flint instruments came from certain centres of fabrication, and were thence sent into the rest of Palestine. This mode of production seems very probable when we observe that layers of flint suitable for the purpose, and in abundance, are distributed over certain regions, and that it is therefore probable that the work would take place near the material.

Are we then to see in the *Rujm el B'hîmé* the waste chippings of one of these primitive manufactories which supplied the land of Canaan? One would hardly dare to affirm this, but I am not far from believing it. We passed some time in searching on the surface of the mounds for specimens of cut flints. We found quantities which seem to have been roughly prepared; others which seemed to have been commenced and abandoned; not a single specimen perfect, or so perfect as to be pronounced with certainty a weapon or a tool. I intend to excavate these mounds, and perhaps a few crucial incisions will throw some light upon this interesting question.

Local tradition of the Lifta people calls the place the site of an ancient city, or rather of an ancient inhabited place; but it is silent as to the flint, and contents itself with calling the chippings *souwanût* (flint). I forgot to say that we found on the surface some fragments in terra cotta.

A fellah of Abu Gosh, the same spoken of in a previous report, has brought me a rough copy, made by himself, of an inscription at El Kubeibeh: Inscriptions at Kubeibeh,

CII O I X I  
A R V II

Difficult to get anything out of this; but it seems like a Latin inscription on account of the R. The X would then be a numerical sign. Have we some inscription of the Tenth Legion, or is it a piece of a Roman milestone? It is interesting on either hypothesis. As soon as time permits I will examine this inscription, as well as that of Ain Yardé. The same peasant spoke to me of a sarcophagus with three rosettes which is at El Boueirè. It is something else to visit.

I have seen and made a squeeze of a fragment coming from Beit Sahur et Ati'ga. It contains nothing but three Greek letters of Byzantine appearance—*ΗΠΟ*, with a large character underneath, like an A laid horizontally. Fragment of inscription at Beit Sahur.

Greek inscription from the land of Ammon.

I received a visit from a trans-Jordanic Bedouin, Jasem, son of Sheikh Goblan, who, besides giving me certain curious information, brought me the squeeze of a Greek inscription in the Wady el Katar, west of Khan es Shib (lat. 31 degs. 25 secs., long. 36 degs. 9 secs.).

ΦΙΛΟ  
ΗΟΤΑΓΡΙΠ  
ΚΟΚΚΗΙΟΤΑΚ

*κοκκηίου* would be the genitive of the Latin Cocceius. The Cocceian *dens* was an important one; the Emperor Nerva, and the historian, Dion Cassius, both belonged to it. The squeeze is as good as a Bedouin can make it; that is to say, detestable, and the characters are hard to decipher. Perhaps the word *φιλο* is part of an official title, such as *φιλοκάισαρ*, *φιλοδῆμος*, or *φιλωρωμῆιος*. In this case it is a great pity that this word is lost, because the inscription would then have a great historical value. At times the second line looks like as if it contains the name Agrippas.

Lastly, a peasant sold me, with a lot of terra cotta coming from Wady Beit Sahur, a fragment of soft stone, with certain characters, which seem to have been written with the point of a knife.

The Well of the Pest at Amwas.

*Apr*opos of the *Bîr et-Ta'oun* at Amwas, of which I have spoken already, here is a remark which occurred after I wrote my account of it. I have already explained the origin of this legend of the Well of the Pest, but very likely another tradition has been engrafted on the former, relating to the closing of the well. The passage in Sozomen has often been quoted which mentions at Emmaus Nicopolis, identified with the Emmaus of the Gospels, a source situated at the intersection of three roads, and endowed with miraculous healing powers, which it owed to the touch of Christ.

This miraculous fountain was closed by order of the Emperor Julian, in order to suppress the Christian belief which was attached to it. If Amwas be really the Emmaus of Saint Luke, would it be rash to consider the legend of Bir et-Ta'oun, closed as it is, a confused amalgam of reminiscences relating to very different events—the suppression of the beneficent source, and the appearance of the epidemic called the pest of Emmaus? Perhaps an inquiry made on the spot will furnish me with more precise information on this point.

Malha.

I have just made an excursion to the village of Malha, south-west of Jerusalem, where I picked up a little information not without its value. There is nothing very curious in the houses, except a ruined burj near the mosque. I remarked in the angle of a house not far from it a broken inscription, very faint, perhaps only a flourish. Inside another house I was shown the entrance, now closed, of a cavern, the door of which would have borne an inscription. The approaches to the village, and the little hill which rises before it (same orientation) are filled with tombs cut in the rock, one of them containing fragments of ancient pottery. They showed me a kind of long box in dried earth, with rounded angles, found probably in one of these tombs, full of bones.

It measures very nearly thirty-six inches in length, and looks like a small bath. I propose to go and open one or two of these tombs.

According to a tradition of the Mawaleh, or inhabitants of Malha, they may be divided into two categories of different origin: the one coming from trans-Jordanic regions, the other from Egypt.

Their pronunciation is something quite peculiar. It is chiefly characterised by the sound of the long *a*, which is very full, and closely resembles the sound of *o*.

The water of the fountain, Ain Yalo, a little distance west-south-west of Malha, enjoys a great reputation. The Mawaleh, when they wish to praise it, say that they weighed its water in the Mijan, and found it lighter than gold; which does not prevent it from being heavy for drinking.

The immediate environs of Malha contain many localities which appear to be of importance: for example, Khirbet el Fowagesi, on a hill, whose terraces in stages can be seen from Ain Yalo. A little more to the east is a place called *Q 'la es sounwan*, the rocks of flint, to which is attached a singular legend. It was formerly an inhabited place; but the people having drawn on themselves the wrath of God, the whole region was transformed into flint. The sin committed was that the women did not use the bread for the nourishment of their children. I do not see what lurks beneath this story, unless it be some relation with the use of flint by the Canaanites in primitive ages. I shall see when I visit the place if it shows any traces of the working of stone.

The Mawaleh have pointed out to me, not far from Malha, three Tumuli great mounds, on the *Jebel et-tawagi*, west of the village, Rujm Afanil, Rujm Ataya, and Rujm et-Tazoud. They are probably the three tumuli indicated by Prokesh and Tobler (Topog. 761), on the left hand of the road from Malha to Ain Karem. The *Darûd* of Tobler must be my Tarud. I see, too, that Mr. Drake (*Quarterly Statement*, Jan., 1874) speaks of these tumuli, which he names El Atyya, El Tarud, and El Barish.

The position of Malha, and the numerous tombs which surround it, Malkhaya. are enough to indicate that we must look for an ancient locality near it. Up to the present no identification proposed appears either happy or important. The best known is that of Schwarz, which has been generally repeated. Malha would be mentioned in the Talmud under the form Malkhaya, as the country of a certain Rabbi José. From a phonetic point of view this identification is very well; but it has no historical value at all, this being the only place where Malkhaya is mentioned at all. Some authors have even doubted the exactness of this otherwise insignificant connection. Thus Neubauer, in the "Geography of the Talmud," remarks that the Talmudic Malkhaya must be looked for in Upper Galilee, because this Rabbi José is named in the passage with another rabbi coming from Sikhnin, a place undoubtedly Galilæan, and he recalls the fact of the existence of a town called Malha in the neighbourhood of Cæsarea.

Caphar  
Gamala.

Tobler, not without hesitation, in which he is right, compares Malha with Caphar Gamala, the place where the body of St. Stephen was found by a certain Lucian. (Top. 101.)

Caphar  
Melich.

Its connection with the Caphar Melich of the Cartulary of the Holy Sepulchre (pp. 90, 93), would be more acceptable phonetically; but we must not forget that Caphar Melich is mentioned with Anquina (?)

I shall propose, in my turn, with some confidence, a new identification of Malha, which, if it is admitted, will have the advantage of solving one of the lesser problems of Biblical topography.

Manocho.

One knows the important group of eleven cities of Judah added in the Septuagint version to Joshua xix. 9. All the critics are agreed in considering this passage, which does not exist in the Hebrew text, not as an interpolation, but as the translation of an original verse omitted by a copyist. Several of these cities are easily identified: *e.g.*, Tekoa, Bethlehem, Faghoûr, Karem, Bettir. Others are less easy to identify on account of the variations of the different manuscripts. With these I have nothing to do for the moment. I shall only remark that all the MSS. name, after Bettir, with very slight differences, a city called Manocho—*Μανοχω*, *Μαβαχ*. Critics have connected this place with Manahat, whither were transported the men of Benjamin, originally from Goba (1 Chron. viii. 6); but it seems to result from Judges xx. 43 that this Manahat is identical with Menonha, situated in the territory of Benjamin. However that may be, 1 Chron. ii. 2 and 4 appear to indicate very clearly that this was a Manahat or Menouhat in Judah. It is to this Manahat or Menouhat that the Manocho of the Septuagint corresponds. Both are, in my opinion, the actual village of Malha. The change from *n* to *l* is a constant fact in Arabic, especially in vulgar Arabic, in proper names; so that when the fellahin say *Malha*, it is exactly as if they pronounced *Manha*. This little phonetic alteration would have been facilitated by the natural attraction tending to bring the Hebrew word to the Arab word *Malha*, salted.

Topographically, Malha perfectly agrees, for it is on the road to, and a little distance from, Bettir, which stands immediately beside Manocho in the Septuagint list. In any case it is in the country of Judah, to which this Greek passage applies generally.\*

Amwas.  
Legends and  
etymology

Another interview with the fellah Ibrahim Almud gave me new traditions on the ancient Nicopolis which are not without their value. It is always the famous pestilence of which I have already spoken in my

\* Schwarz (*Holy Land*, 79) supposes that the Manocho of the Septuagint corresponds with a Hebrew form, Manuka. The Greek *ch* might possibly, according to the custom of the Septuagint, be the representation of a *caph*, but it holds quite as often the place of a *khet*. Besides this supposed form Manuka once obtained, Schwarz is obliged to have recourse to another conjecture. He admits an intervention in the word, and connects it with the Mekonah of Nehemiah xi. 28, one of the cities repopled after the captivity by the men of Judah, and finally with Mechemin, or Machamin, mentioned in the Onomasticon between Jerusalem and

previous reports which fills the principal part in these vague souvenirs of the past.

On the first appearance of the pestilence at Emmaus, the inhabitants, who were all Jews, mostly fled. Nearly all who remained died. The scourge passed, the fugitives came back to the town. But the following year the epidemic appeared again, and the people all perished without having the time to escape by flight. At this moment arrived Neby Ozeir (Esdras), who found all dead—men, women, and children. The prophet having asked of God why he had so rudely chastised the country, supplicated the Almighty to resuscitate the victims. It was done, and since that time the Jews have been named *oulad el mûte* (the children of the putting to death).

It is to this epidemic that the city of Amwas owes its name, according to our fellahîn. They say, in fact, of the pestilence, *amm-ou-asa* (it was extended generally, and was an affliction). (I have not been able to determine precisely the meaning of the second verb, which I omitted in my notes.) Of course I put no faith in the truth of this etymology, which is evidently artificial, like many of the same kind met with in the Bible as well as in the mouths of the people, and on which I have many times in these reports found occasion to insist.

It will be curious to give, side by side with this rustic etymology, a philologic explanation of the same kind given us by St. Jerome precisely *apropos* of Emmaus. The learned Fulton translates the word Emmaus as *populus abjectus, alias abicientes*, which proves that he decomposed Emmaus into *Am, people*, and *Maus, refuse*. St. Jerome appears to allude to various Biblical passages where this word is applied by Christian exegesis to the Jewish people, and to have had notably present in his mind the verse of Lamentations iii., "Thou hast made us as the offscouring and refuse in the midst of the people."

It is clear from this etymology, more ingenious than probable, but to which we ought to have paid a little attention, that in the time of St. Jerome the Semitic name of Nicopolis was pronounced 'Emmaus, 'Ammaus, with the *ain*, and that consequently the Arabic form is much nearer the original than the Talmudic *Amaous* with the *aleph*.

This interpretation of Saint Jerome is, besides, an additional proof that, for him, the Emmaus of the Gospels was Nicopolis, and consequently the Amwas of our time; it also shows that the word Emmaus was nothing at all to do with Hamath, which is written with a *khet*,

Beit Jibrin, eight miles from the latter city. This series of suppositions is very improbable, especially if we reflect with Mr. Grove (*Bib'le Dict.* s. v.) that the Mekonah of Nehemiah, joined with Ziklag, was probably much farther to the south of Palestine. Schwarz adds at the end of his paragraph, *oder Malcha*, only, in his article on Malcha and Machaya, p. 89, he does not breathe a word of this identification, which presented itself to his mind for a moment, but without any plausible reasons.

and which some authors want to identify with it. Here are names of different places situated at Amwas. *Khall't el Adhra*, the well of *Khall't el Hammam*; *Ersoum*; *Khall't el taga*, where they show the place where knelt the camel of Saleh, the prophet sent to the Themondites. The fountain of Ain Nini dries up in summer. Formerly there was an aqueduct carrying water to Amwas from Bir et Tiné, on the road near Bir Eyub.

Inscriptions  
with em-  
blems.

I have just seen at a mason's in Jerusalem a fragment of a strange inscription, brought to light, it appears, in repairs made at the Mehkeme. The block on which it is engraved has the mediæval dressing, which gives us as our limit the period of the Crusades. There is only one line of characters rudely traced and difficult to make out:

U U S N - - 1 1

but what is interesting is that the line is surrounded by representations of tools and instruments: the first resembles a great cullender, the second a stove, the third is certainly a cleaver; then comes a kind of pestle; next a cutlass in scabbard. The whole resembles the apparatus of a cook. Perhaps we have the epitaph of some great *chef*. We know that the representation on the tombstones of certain artisans of the instruments of their trade was a common thing in the middle ages as well as in antiquity. Perhaps we may see in the first letters of the fragment *uis*, the end of the word *coquus*. You shall have a drawing of this enigmatic stone.

Haram  
arcades and  
gallery of  
the Kubbet  
es Sakhra.

I have at length succeeded, after many researches in the various libraries in Jerusalem to which I have access, in getting at the original text of John of Wirzburg, and in studying the principal passage of this author quoted in my last report on the little arcade round the Sukhra. Here is the passage:—

“*Supra se etiam, juxta tectum, locum deambulatorium circum quaque exhibentibus et habentibus canales plumbeos qui aquam pluviatilem evomunt.*”

The construction of the phrase is sufficiently obscure, and the manner in which Tobler and M. de Vogüé render it seems to me a paraphrase rather than a translation. If we keep to the text, taking the architecture itself as our commentary, it seems that *supra se* should mean, in the incorrect language of the author, “above the exterior wall” of which we have just been speaking, as well as of the interior wall, and not “above the roof,” since immediately afterwards we have *juxta tectum*, “near the roof.” It is the only explanation possible, if we admit the punctuation adopted by the editor of the text and followed by these two learned archæologists. But I think that this punctuation, which makes of the words *supra se* a phrase by themselves, is an error; and, in fact, by cutting up the text in this fashion, the words *exhibentibus et habentibus* belong to nothing at all. Replace the colon by a comma, and restore the passage as follows:—“*cum pulcherrimis laqueariis supra se etiam, juxta tectum,*” &c., and translate: “Between the two walls there is an intermediary roof, with a beautiful panelled

ceiling, over which (which has above it), running all round, is a gallery, and which has leaden pipes for getting rid of rain water." From this rigorous translation, it is clear that the gallery was above the ceiling, and therefore had a large relative width, not being limited to the breadth of the wall. Possibly the inclination of the roof stopped suddenly before reaching the external wall, surmounted by arcades, and let the water fall upon the floor of the gallery: here they would be caught by the leaden gutters and thrown out by gargoyles placed most likely at the same points as we now see them. Tobler translates *canales* by *rohren*, De Vogüé by *tuyaux*. It is better, I think, to use the French word *cheneaux* derived from it, and signifying, not a tubular conduit, but an open canal.

The excavation undertaken by the Memour against the interior of the east wall of the Haram, of which I have already spoken, has been sunk to more than 30 feet. The point chosen is nearly 160 metres (173 yards) south of the Golden Gate. We have now reached, and even passed below, the level of the soil outside. The excavation has led to no archæological or practical result; nor any traces of the dressed stones searched for. It has passed through made-up earth mixed with pottery, cubes of mosaic, fragments of marble, &c. We descended the shaft, which is not very cleverly made, and narrowly framed in. We were able to examine the wall as far as the shaft goes, and can state that the stones have no mediæval dressing. . . . I am afraid that the shaft will be shortly closed.

Excavation  
within the  
Haram.

At the bottom of the shaft the wall presents two successive sets back, the first 3 in. of projection and 15 in. of height; the lower  $7\frac{1}{2}$  in. of projection, with a height as yet undetermined, the shaft having stopped at . . . . At a point 6 ft. 6 in. above the first projection the wall shows a very sensible change in construction, seeming to indicate two successive visible epochs, visible also from the outside: the more ancient below, the more modern above, naturally.

Now a few remarks on my visits to the Haram. The blocks of the inner side of the exterior wall of the Kubbet es Sukhra, visible in the frame of the wooden stair leading to the roof, are pierced by numerous openings, in which have been inlaid small pieces of flint, having their visible faces cut and polished. I cannot explain the purpose of this singular arrangement, which has perhaps a superstitious origin. The dressing of the blocks is not mediæval.

Flints inlaid  
in the  
blocks.

The application of the rule of mediæval dressing has led us to establish several important facts in the *enceinte* of the Mesjid. (1) Great bases of engaged columns on the platform and near the Mosque of the Mogrebbin, certainly mediæval. (2) Various fragments of architecture of the same origin built up here and there. (3) Mediæval stones and gate in the wall north of the gallery, which joins the Aksa to the Mosque of the Mogrebbin. (4) *The whole south-west angle of the esplanade of the Sukhra is entirely mediæval.* (5) Several buttresses on the west side of the platform are made up of materials of the middle ages.

Crusading  
construc-  
tions in the  
Haram.

I observed on the pillars of the porch north of the Haram a large number of Latin masons' marks (pricked with the point of the tool); they are engraved on great blocks, *which have been stripped of their mediæval dressing*. I suppose them to be older blocks simply used again by the Crusaders, who put signs on them to facilitate placing them in proper positions.

Niche of  
ancient  
Statue.

On examining the large hollow stone which the Mussulmans consider the cradle of Jesus, I believe I have discovered that it is the niche for a statue of small dimensions.

South face  
and S.E.  
angle of  
Antonia.

The south face of the scarped rock north of the Haram requires to be studied attentively; at a certain point it makes an abrupt return at right angles and due north. I have not seen this angle marked in the map of the Ordnance Survey. Perhaps it is the east limit of Antonia. A little more to the west an ancient cistern is cut in the side of the rock; here and there, and at a uniform height, are to be seen in the rock quadrangular holes seemingly intended to receive beams.

Wall west  
and north.

The thin wall of rustic-work to the west and the north, indicated in the *Statement* of April, 1872, is again accessible and visible. We hope to make an exact sketch of it, the published plan giving a very insufficient idea of it, and not indicating the kinds of pilasters, recalling those of the *enceinte* of the Mosque of Hebron and the *débris* of the Russian ground behind the Holy Sepulchre.

We have just undertaken two excavations.

The rock-  
cut cham-  
bers be-  
tween the  
Ecce Homo  
and the  
Austrian  
hospice.

The first, in the chambers cut in the rock between the Austrian hospice and the church of the Ecce Homo. I at first tried to push myself into the opening I, at the end of the chamber P, hoping to arrive at another chamber, or at a primitive entrance. I had to force my way in the midst of a mass of rolling stones, which shook at every movement. After two days of stubborn as well as dangerous work, we were obliged to give it up. We have, however, meanwhile, succeeded in seeing and touching to right and left two *vertical walls of rock*, at right angles, the angle being about one metre from the opening. These two walls may belong to a chamber like that lettered P; but they may also be the walls of a vestibule, whose sides were cut in the rock, and which was open to the sky. In favour of this hypothesis, the ground of the passage *i*, Plate II., above the surface of the chamber P, is on a level with that of the region X, still to explore, an arrangement which applies better to the entrance of a tomb than to a simple communication between two chambers. Besides, the enormous mass of stones, against which we have vainly endeavoured to struggle, implies the existence of a hollow much higher than a single chamber. Either this chamber has lately given way, or else it was always open to the sky.

Shaft and  
gallery in  
the Arme-  
nian ground  
south of the  
Austrian  
hospice.

The second excavation is in the Armenian ground (27 O. S.). Captain Warren has already made an excavation on this side in the Street of the Valley (March, 1869). The point that I have chosen is sixty metres more to the east, at the lowest point of the ground. One

shaft is already five metres deep. I propose to open a shaft to the S.S.E., in order to cut the probable line of the second wall.

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X.

JERUSALEM, May 3, 1874.

SEVEN days ago, as I was preparing to make an excursion to Jericho, an Arab of Jerusalem, who owns and cultivates a large piece of ground at Latrun, came to tell me of the discovery, or rather the apparition, of a large inscription close to that village. After the information which he gave me, I thought it best to adjourn the projected excursion and to repair without delay to the spot, in order to examine the text, which might be important, consisting, as he professed, of twelve lines, written all round, and inside a well, called the Bir el Helou. We arrived at the well, which is situated a few minutes south-east of Latrun, at the bottom of a broad valley, whose waters it drains; it is a veritable "well of living water," and not a cistern, circular, and of careful construction, covered with a vault, in which are seen two openings showing the ancient place of a *beyyara* or *noria*. The water drawn by this machine was poured out into a small *birket*, and from thence directed by an aqueduct, half destroyed, upon the ground for irrigation. The diameter of the well is 3.70 metres. I immediately proceeded with an *empressement*, easy to understand, to search for the famous inscription: and in fact I saw running all round the interior wall of the well a considerable number of very small characters, of which I counted in certain places as many as twelve or thirteen lines. The first line, the lowest, was a very little above the level of the water, which was low in the well. The characters, traced at some distance from the margin of the well, were so small and so close together, that I could only distinguish them by means of a glass. I say *distinguish*, because it was perfectly impossible for me to read a single one, or to determine the language and the character of this mysterious inscription, to the great disappointment of the Arab who accompanied me. I estimated the number of letters at ten thousand!

The In-  
scription at  
Bir el  
Helou.

After the fruitless attempt I went back to the village of Latrun, where I had to pass the night, and took advantage of the opportunity to revisit Amwas. In both these villages I found the fellahin in a state of great excitement on the subject of the inscription round the well. They all gathered round me, eagerly inquiring if I had been able to make out the characters. I had humbly to acknowledge my inability. In turn I interrogated them as to how the inscription was first remarked, and got the following information. Twelve days before the women of Latrun went to the Bir el Helou to draw water, and came back in a great fright, crying out that the well was miraculously filled with writing. Nothing had been noticed the day before, though the well is much frequented and supplies the whole village. The fellahin imme-

diately imagined that the inscription was a manifestation of the will of Sidna el Khalil (Abraham). The rumour ran about the neighbouring villages, and every day hundreds of them came on pilgrimage from the places round to contemplate the characters traced by the very hand of the patriarch.

This explanation of the enigmatic inscription which appeared in a single night was the more natural because there exists in the country an analogous legend. Forty years ago a great discussion arose on the boundaries of Deyr Eyûb and Latrun (the latter is *wakf* of Hebron and included in the lands of the Mirî). No one knew which side to take, when the patriarch himself intervened, and placed in the night a mound on the point where he meant the boundary to pass. Next morning the newly-arrived hillock was seen, and everybody submitted, without further question, to the decision given by this supreme judge. They show the Rujm el Khalil on the left hand of the road leading from Deyr Eyûb to Latrun. This new intervention of Abraham in the affair of the inscription was the more marked because the Bir el Helou is also called the Bir el Khalil, the Well of Abraham, and because Abraham rested here, according to the local tradition, between his departure from Orfa and his arrival at Hebron. The fellahîn are so convinced of the miracle that they are coming every instant to see if the writing does not increase, and if, by chance, the patriarch has added a postscript to his long missive.

As for the explanation of the fact, they offer a very singular one. Abraham manifested his will by writing to show that he would no longer tolerate Christians in the country. All were agreed in deriving this conclusion from the miracle. At Abu Gosh, which I passed both going and returning, the people were of the same opinion, and there was only one voice in the environs. Nevertheless, they did not fail to question me very carefully whether I had been able to translate the inscription, and when I was obliged to say no, they gravely shook their heads, and appeared to draw from my inability a new argument in favour of its supernatural origin.

I passed a bad night at Latrun, partly on account of a hard bed, and partly by reason of this strange affair, which perplexed me greatly. The next day I rose before daybreak to go back to Jerusalem, but I wanted first of all to see once more this phenomenon of inscriptions, and to get it off my mind. I put in requisition the furniture of my host, and went to the well with a little ladder, a table, and a rope. A great number of the people of Latrun accompanied me, some of them assisting me with a good grace. I placed the ladder horizontally in the water, holding it in its place by the rope, and placed the table on it like a plank; then I lowered myself down to this position of unstable equilibrium, half raft half scaffold. I was now able to touch the characters with my finger, and consequently to study them at leisure. They appeared to me traced with the *galam*, with ink of a reddish black on an old coating (of plaster), which covered the wall of

the well. Where the coating had fallen off, the lines continued. The two last lines appeared to have been smeared by a rise in the water at the moment when the ink was not yet dry. The letters remained some time undecipherable by me; they appeared to consist of signs entirely arbitrary, vaguely recalling the writing of certain talismans; the execution made me think of Arabic inscriptions written at the present day on the wall with ink and the *galam*.

Looking more attentively, I discovered a fact which shows peremptorily that the text has been written only a few days. The water, which two or three weeks ago was at a higher level, having dropped, several bits of straw floating on the surface had stuck to the wall. Now I observed that the strokes of the *galam* passed over several of these bits; striking one away, I observed the interruption of the stroke.

I had seen enough. I climbed out and told the fellahîn in plain terms, thinking it best to make a breach in their fanaticism, that the inscription had been made a few days before by some ill-advised joker. But they would not give up. If the inscription appeared to be recently executed it was one proof more that it came from the hand of Abraham; the characters must be *Yahoudi*, *'Ebrany*, or *Syriani*; that was the reason why I did not understand them. At this moment there appeared at the bottom of the valley a caravan of camels charged with grain coming from Gaza, escorted by two Jews, whom I called in to convince these obstinate peasants. The Jews declared that the inscription was not Jewish. Trouble lost!

Decidedly the *métier* of archaeologist becomes more arduous in Palestine. After the pseudo-Moabite pottery, we have a quasi-patriarchal phantom; after the fraud comes the miracle. If fanaticism joins in, one will have to give up. The inscription of Bir el Helou is, then, of recent date. But how to explain the object with which it was drawn? It must have taken very considerable time and pains to write these thousands of signs, even though they are arbitrary, close to the edge of the water, in lines perfectly horizontal. Evidently the work was done during the night, since the evening before nothing was seen, and the next morning the women ran to announce the miracle.

Two explanations suggest themselves; I propose them under reserve. Some Mussulman searcher after treasure may have inscribed these magic signs, hoping to make the object of his search spring from the well. Or perhaps the intention of the writer is revealed by the effect it has produced—the *awakening of fanaticism tending to the expulsion of the Christians*. The thing that makes this last hypothesis probable is that in fact for two or three years past many Ottoman and European Christians have made great acquisitions of territory about this place with the view to agricultural operations. This intrusion is jealously regarded by the fellahîn, with whom the new proprietors have generally a bone to pick. Some mischievous villager may possibly have had recourse to this ruse to provoke against these Christians a religious reaction, shaking the sole cord which remains among the people of

fanaticism. Without meaning that one may see here the elements of a Mussulman Jacquerie, I must own that the emotion produced in the country by this miraculous incident has been very lively.

A few remarks made on the road :—

(1.) At Colonia, south of the road, in front of the ruined building, in a field, two great *roussoirs* with the mediæval dressing.

(2.) The hill close to Abu Gosh and south of it is called *Baten El Kheymé*. At a few minutes north-west of the village is a well whose water is endowed with healing properties. It is called *Bîr Au Kouch*.

(3.) Latrun was surrounded by a triple wall, according to the fellahin. I have examined the ruins, which appear to me important and worthy of being noted.

(4.) At Emmaus I visited several houses and saw pieces of sculpture coming probably from the church. The exact site of the *Bir et Ta'oun*, or well of Pest, is unknown. The Wely, placed on a height east of the village, is called Sheikh Moal iben Jebel.

(5.) The Fenich were three brothers, all kings; their tombs are north of, and not far from, Suba; you get to them by a well. There is, the peasants tell me, a subterranean communication between Suba and Latrun.

Excursion  
to Jericho.

The day after my return from Latrun we left for Jericho, where I went to ascertain certain points before heats set in. M. Pierre Decosse, overseer of the works at the Church of Saint Anne, was good enough to look after the excavation in the caverns of the Via Dolorosa and in the Armenian ground. We went to Jericho by the shortest and best known road; our journey there offered nothing worthy of note. We installed ourselves on a little hill at the entrance to Riha, near the cemetery, and not far from Burj.

Gilgal.

Next day we went to the presumed site of Gilgal, which we had not been able to visit on our first journey to Jericho, the existence and the name of which I had spoken of to Lieut. Conder. This place, situated not far from Tell el-Ithlé (or Hithlé), has been pointed out to several travellers (Schokke and Frère Liewin) under the name of Jiljulieh. The people of Riha told us that this was a name peculiar to the Franks.\* However that may be, we tried a few little excavations in the mounds of El Ithlé and Jiljulieh; these were not deep, and led to no great results. In the first, a large quantity of pottery fragments, cubes of mosaic, and lots of glass; in the second, sand. It is certain that there was once an edifice here of considerable importance, to judge by the mosaics. But that proves nothing for or against the identification of Gilgal, which appears to me still a doubtful point.

Fragment  
of sculpture  
at the  
Tawahin es  
Soukker.

Next day we examined the Tawahin es Soukker again, and especially an aqueduct where I had remarked at our first visit materials of

\* An example which proves with what care one must put questions to the fellahin and draw conclusions from their answers. Some time ago the Archimandrite of the Russian Mission having asked, on my indication, to see Jiljulieh, was taken to Tell el Mufjir, which they showed him by that name.

ancient origin. We turned over all the blocks scattered about the environs, and pulled down certain bits of the broken aqueduct, which brought to light a few sculptured fragments, evidently belonging to monuments of importance. They were drawn by Lecomte.

In the afternoon we went to Tell el M'gheyfer, also called sometimes Tell el Koursi (Tell of the Throne or the Chair), and considered by some authors as the real Gilgal. The Russians are at present digging there for building materials, they have already a considerable quantity of stones laid down with blocks brought from elsewhere in a place near Burj. Many of these blocks are covered with fragments of fresco painting in Greek style. I greatly desired to have a sketch of Kurn Surtabeh from this point, and while Lecomte was taking it our two workmen dug into the site, but without success. Tell el M'gheyfer.

The next day broke up camp in order to return to Jerusalem by way of Neby Mûsa. This sanctuary, so deeply venerated by Mussulmans, is in a state of complete dilapidation. We could not get into the central chambers, which were locked. We could only examine the exterior dependencies, and look through the window at the cenotaph of Moses, covered over by a silken sheet with embroidered inscriptions. Everything appears to be of Arab construction.\* The only things that deserve mention are: in the balustrade of the minaret a stone with oblique mediæval dressing; in the interior of one of the windows of the central building a fragment of a granite column; in the southern face of the peristyle a base sculpture in red limestone polished, consisting of a series of flutings, in which stands out in very high relief a kind of rosette of foliage elegantly entwined. Neby Mûsa.

All was nearly deserted; a few Bedawin were halting there like ourselves to breakfast; there is fresh water, of a slightly bituminous taste, in a well of no great depth.

Some minutes farther on stands a little wely, called the Kubbet er ra'i, where reposes, according to local tradition, the Shepherd of Moses, called Sheikh Hassan.

The memory of Moses is certainly alive among the inhabitants of this region. At every moment I heard the Arabs swearing, "By the life of the son of Amran." I questioned some of them to find out if possible the *point de départ* of the legend which places the tomb of Moses on this side of the Jordan, and consequently in such flagrant contradiction with the Biblical tradition. They told us, in reply, that when the angels announced to Moses that his last moment was come, he was Traditions of Moses.

\* See Mejir ed Din for several details on the history of this Mussulman sanctuary. He commences by mentioning the doubts on the authenticity of the tomb, adding that general opinion places it here. He assigns the construction of the Kubbet to Melek ez Zaher Bibars, who built it after his return from pilgrimage to Mecca and his visit to Jerusalem in 668 (A.H.). These additions were afterwards made. The minaret was built in 880. He mentions the annual pilgrimage hither, and speaks of apparitions and prodigies at the tomb, proving that it was that of him "who spoke with God."—*Kelim Allah*.

on the east of the Jordan, and that he fled, to escape the fatal moment, to the place now called the Neby Mûsa. There it was that he found the angels occupied in hollowing a tomb into which he descended, deceived by the subterfuge that we know. Arrived at this desert place, he said to God, "There is nothing here to drink, nor any wood to make a fire." And God said to him: "Thy water shall come from the well, and thy fire from the stones." And that is the origin of the wells dug near the sanctuary, and of the combustible stones of schist which abound at this place.

The rod of  
Moses.

There is met with here and near Jerusalem an insect like a centipede, called the rod of Moses. This inoffensive creature resembles a long blackish worm, and is provided with a large number of feet, by means of which it advances, preserving its straightness of form; in fact, you would think it a little stick endowed with the power of motion. If you touch it, it rolls together into a ball. This mode of locomotion and this aspect have made the little animal popular among the Arabs, who have connected it by its name with the miracle performed at the burning bush.

I got at Jericho new details on the life of Imam Aly, who is only, as I have said before, a travesty of Joshua. The boundary of the Ghor Seisaban and the Ghor of Beisan was traced by the sword of the Imam Aly, who cut through with a single stroke of his sword an enemy, the bridge or aqueduct on which he stood, and the ground beneath him. It was impossible for me to find out exactly where is the place indicated in this legend; it is called Jisr. Aly, again, had a great war to wage against the Emir Abu 'Obeide, before the time of Mohammed. Abu Obeide is a historic personage, who came with Omar. His tomb exists still east of the Jordan.

Bedouin  
pronuncia-  
tion.

The Arab who gave me this information so curiously jumbled up, pronounced the name 'Obweide; the intercalation of the *w* with the *b* and the *i* is familiar to the Bedouins; thus they say *bweino* instead of *beino*. Our two workmen, two worthy peasants from Beit Iksa, a little village situated west of Jerusalem, who worked some time at the repairing of the *locanda* at Jericho, gave me the history of Aly and the sun with a singular variation, which I will transcribe faithfully, but I cannot state whether it is their own invention, or if obtained by them from the inhabitants of Jericho.

Aly and the  
Sun.

Imam Aly received guests at a time when there was a great famine over all the country. Having nothing for them to eat, he went to a Jew and begged of him a single imaum of wheat, offering him in exchange a measure of gold. The Jew refused, saying that he would only give him the wheat on condition of getting it back again before sunset of the same day; failing which, Aly was to give him his son. The sun was about to set, and Aly searched vainly for wheat to restore the borrowed measure, when God said to the sun, "Return, O thou blessed!" He thus gave him the time necessary to get the wheat for the Jew, and he was not obliged to give him his child.

The men of Beit Iksa told me that their village bears also the name of Umm-el-ela: another of those double names that I have so often pointed out. The present inhabitants belong to the Beni Zeid, and come from the north; they obtained permission of Umm-el-ela, and gave it the new name of Beit Iksa. The ethnical name to which Iksa belongs is Keswani, in the plural Kesawne—*Beit Iksan* or *Ikswan*. We must, therefore, in Palestine topography, keep account of the migration of names transported with the population from one place to another.

Ancient name of Beit Iksa.

The route between Neby Mûsa and Jerusalem offers nothing remarkable in archæology. The only thing we have to notice is a fine fragment of sculpture fitted into the wall of a house in Bethany; at the angle of the fragment is the head of an ox; one of the facings shows the mediæval dressing. This will be drawn.

Sculptured fragment at Bethany.

Some minutes before arriving at El 'Azariyeh (Bethany), on the east of the village is a rocky plateau, covered with sepulchral and other excavations, walls, wine-presses, &c.; one would say that there has once been an inhabited place. It was impossible for me to find out if the place had a name, and whether it was simply called a Khirbet: only at the southern extremity of the plateau local tradition shows a piece of rock half buried in the earth, and called the ass of Lazarus, saying that the animal was petrified after having been ridden by Jesus. Are we to place on this side the problematic Bethphage?

The ass of Lazarus.

My principal and only aim in going to Jericho, was to study on the spot a point whose full importance I realised on my first visit, I mean Kurn Sartabeh, and a Biblical tradition which seems to me narrowly connected with that well-known mountain.

Kurn Sartabeh.

If, in the vast plain of Jericho, you raise your eyes northwards you will see the horizon partly closed in the distance by a long chain of blue hills, above which rises a conical peak known as Kurn Sartabeh. This peak, which is seen from a long way off, and which appears to command all the low ground at its feet, attracts the eye by its bold front, and retains it by its strongly marked form. Robinson is right when he says that this commanding summit appears from Jericho like a bastion of the western chain.

The first part of the name (written by Robinson *Kurn*, and by me *Q'rein*, diminutive of *Kurn*, a *horn*) is frequently applied by the Arabs to remarkable peaks. It is this sense which has made Lynch commit the singular error of assigning to the name the meaning, "horn of the rhinoceros." The meaning of Sartabeh is completely unknown, and we must probably look for some ancient name to correspond with it.

It is, first of all, essential to establish its orthography. I have carefully noted the pronunciation of the Arabs of Jericho and its neighbourhood, and have ascertained that the first letter is a soft S (sin), and not the hard S (sad), as the transliteration of Robinson shows.

The Sartabeh of the Talmud.

Under this form it is easy to recognise the name of the mountains mentioned in the Talmud, and written סרשבה and סרשבא. Here is the passage, quoted often since the time of Reland, which I think I ought to give in full for the better understanding of what follows:—

“Signals of fire, serving to announce the New Moon, were made from the Mount of Olives to Sartabeh, from Sartabeh to Gerufna, from Gerufna to Khoran, from Khoran to Beth Baltin.”

M. Neubauer (*Géographie du Talmud*, p. 42) says: “They announced the New Moon to the country districts by means of fires lighted on the mountains. Later on, the Samaritans, in a spirit of hatred, lighted other fires, which caused errors. Therefore the fires were suppressed and couriers substituted.”

I have no occasion here to occupy myself with the historic side of the question, and to examine if it was really possible to make a direct signal from the Mount of Olives visible at Kurn Sartabeh. I confine myself to the simple identification of one hill with the Talmudic Sartabeh. Observe, further, that the Hebraic orthography of the word is different to that of Robinson; that is, the word no more contains a *tsade* than it does a *sad*.

This fact will permit us to pass immediately to a Biblical relation advanced for Sartabeh. It is quite natural to suppose that the Bible did not pass over in silence the name of a mountain so important.

Zarthan.

Starting with this idea, some writers think themselves authorised to recognise in Sartabeh the new Zarthan (Zaretan of Joshua iii. 16), and placed by the Bible in the Jordanic region. Nothing is less admissible than this identification, which rests wholly on an etymology entirely recent. The external resemblances which seem to exist between the two words completely vanish when we compare them letter by letter. The *nun* final might correspond with the *b*, but both the *s* and the *t* are radically different in the two words.

Must we then abandon altogether the hope of finding this peak mentioned in the Bible? I think not, and I believe, on the contrary, I can adduce a passage of the highest interest, though under a form mythological rather than geographical.

Apparition to Joshua.

In Joshua v. 13—15, is related a strange episode which seems to attach itself to the consecration of Gilgal as a sacred place. Here is the literal translation—“And Joshua was at Jericho, and he lifted up his eyes and looked, and behold there stood a man before him with his sword drawn in his hand; and Joshua went towards him and said unto him, ‘Art thou for us or for our adversaries?’ and he said, ‘Nay, but as captain of the host (SARSABA) of the Lord, and now I am coming towards thee.’ And Joshua fell on his face to the earth and did worship, and saith unto him, ‘What saith my Lord unto his servant?’ And the captain of the Lord’s host said unto Joshua, ‘Loose thy shoe from off thy foot, for the place whereon thou standest is holy.’ And Joshua did so.”

The Hebrew word Sarsaba signifies *chief of the army*, and is rendered

in the Septuagint by ἀρχιστράτηγος. The different versions of the Bible render it *captain of the army of Jehovah*. We know that Jehovah himself is sometimes called *Jehovah Sabaoth*, when mentioned as the head of the army of angels or stars, and that this expression appears in the Gnostic formulary, *Sabaoth*.

I only wish for the moment to call attention to the striking resemblance which exists between Sar Saba and Sar Taba, when the Hebrew *tsade* is replaced in the Talmudic and Arabic form by a *tet* and a *ta*. This substitution of the *t* for an *s* is one of the most frequent remarked in the passage of the Hebrew to the Aramaic; thus Tyre is now Sor (ܣܪ).

This etymological coincidence being so complete cannot be fortuitous. It leads us to ask whether it does not conceal a close relation between the mountain and the apparition.

Let us remember how often mountains are found in relation with visions analogous to that of Joshua. Mountains, it is well known, occupy a considerable place in Semitic religions, and even the Hebrews attached sanctity to them. We understand how they served as a natural theatre for the manifestations of the Deity. I could cite many examples. Let us take only one or two.

First, the appearance of Jehovah to Moses in the burning bush on Mount Horeb. Moses, perceiving the supernatural flame, advanced towards it, as Joshua towards the man. Just as Sarsaba told Joshua, who came towards him, to take off his shoes because the place was holy, in exactly the same terms Moses is ordered to do the same thing.

For the suddenness of the vision we may compare Zech. i. 8; ii. 5. It is the same prophet who says (viii. 3), "The mountain of Jehovah Sabaoth is a sacred mountain," and also shows us (xiv. 3, 4) the Lord going forth to fight with "his feet upon the Mount of Olives."

One of the apparitions which has the most literal resemblance with that of the Sarsaba to Joshua is the appearance of the destroying angel to David. This episode is told more simply in the Book of Samuel (2 Sam. xxiv. 15), but with greater detail in 1 Chron. xxi. 14—17. The latter strongly recalls the passage in the Book of Joshua, and especially if we compare the Hebrew text.

Jehovah having sent his angel to smite Jerusalem, had pity on the unhappy town, and said to the *Destroying Angel* (*Melek ha-Machhîl*), "It is enough: stay now thy hand." David *lifted up his eyes and saw the angel stand between the heaven and the earth, having a drawn sword in his hand. He threw himself upon the ground.* The angel, who was at this moment above the threshing-floor of Ornan the Jebusite, caused Gad to tell David to *go up and set up an altar on the threshing floor.*

It results from this passage that the angel was above Mount Moriah. It may not be useless to remark that the angel called *Machhîh* seems onomastically connected with the Mount of Olives, often designated by

the much-disputed name of *Har ha-Machhit*.\* We know that the two mountains of Moriah and Olivet were intimately connected from a religious point of view, and in ceremonies, and that on the latter (2 Sam. xv. 34) was a place where David adored Elohim.

These analogies alone would be enough to make us seek in this episode of Joshua's life the existence of a mountain. And is this mountain anything except that which now is called by the significant name of Sartabeh, or Sar-Saba?

The story of Joshua analysed, means two things: (1) the height of the point where the apparition stood, for he lifted up his eyes; (2) a considerable distance between the vision and Joshua, for Joshua went *towards* him; and the angel said, *I come towards thee*. Further, the use of the word מַעַל, *stars*, means that the supernatural being was upright on a base.

The dominant position and the characteristic aspect of Sartabeh, the master of the plain, makes it an admirable place for the appearance of the Captain of the Lord's host.

It is not superfluous to remark that, besides its probable character of sanctity, the peak had great strategic importance. Schulz has already proposed to place on it the Alexandrion of Alexander Jannæus, and the considerable ruins which Zschokke found on the summit have induced him also to share this opinion. The fact of its military strength would help to explain Joshua's question, "Art thou for us, or for the enemy?"

The appearance of the warrior-angel of Jehovah hovering over this strong natural fortress with which he identified himself, perhaps, is quite topical. Who knows even that the naked sword in his hand, as that of the destroying angel (of the Mount of Olives and Moriah), is not in some way connected with the flame which, according to the Talmud, was lit on the determined moment on the summits of the sacred mountain?

What are we to understand exactly by Sar Saba? The question is extremely difficult, and belongs to the more obscure side of the Hebrew religion. I cannot touch on it here. Let us only remark that God himself is called (Dan. viii. 11) *Sar Ha Saba*, which agrees perfectly with Jehovah Sabaoth. There is no doubt as to the general meaning: it is *commander-in-chief*. Thus Omri was Sar Saba over all Israel. It is the exact representative of the present Mussulman Serasker,† common to Turks, Persians, and Arabs.

\* Most commentators derive Machhit, the name of the Mount of Olives, from Machah, and translate it *oil*, while they make Machhit distinctive from Chahat. I do not know the true etymology for each of these words, but what is without any doubt is they singularly resemble each other, and that this resemblance, added to the coincidence of the events, cannot be accidental.

† As for the etymology of Serasker it is, I believe, wrong to make a hybrid composition of the Persian *ser*, *head* and the Arabic *'asker*, *soldier*. Serasker is historically an Arabic term; it is thus, linguistically, a Semitic word; *ser* corre-

Strategic  
importance.  
Sartabeh.

We see in Daniel that many nations have their *sar* or guardian angel; for example, Greece and Persia. The *sar* of Israel is Michael, who in other places in Daniel is qualified as the chief of the power, Sar ha-malkot, and the chief of the grand chief, Sar hag-gadol; "Sar Michael is your chief."

Michael generally personifies the divine power, particularly in his manifestation of violence, or when he combats with Satan to help man. One remembers (Jude) Michael and the devil disputing over the body of Moses.

The later traditions do not hesitate to recognise Michael in the angel which appeared to Joshua.

Phocas speaks of a *Bounos* (tell) which was situated in front of the Mount of Temptation, on which stood a temple indicating the place where Joshua saw the Archangel Michael.

Church of St. Michael on the site the Vision.

An anonymous description (Allat. 13) says, that below the monastery of St. Euthymus there was a monastery of the Virgin, whence Joshua saw the angel. Daniel also speaks of a church at Gilgal, where they had added a convent dedicated to St. Michael, because it was on the spot where Joshua had his vision.

It results from the testimony that tradition admitted the vision of Joshua to have taken place during his sojourn at Gilgal. I have already remarked that this conclusion appeared to be indicated by the tenor of the episode and by the position that it occupies in the chapter, although it begins with the words "at Jericho." We need not take the expression too strictly, and may very well understand by it the environs of Jericho.

The disposition of the mountains which border the plain of Jericho is such that the Sartabeh is invisible west of Riha, since it is completely masqued by the chain of the first plain, and especially by the height of Ichché Ghorab, which terminates it at the east. But starting from Riha to the east it appears at all points of the plane. The drawing that M. Leconte has made is better from Tell M'gheyfer, one of the sites proposed for Gilgal. We have also a sketch of Tell el-Ithlé, taken from Jiljulieh.

I must note an observation of some interest. Coming from the east, as one approaches Jericho, Sartabeh retreats little by little to the eye, between Ichché Ghorab, which ends by covering it up completely. The profiles of these two mountains and the chain on which they stand offer the strongest analogies, taking account of perspective and proportion.

It has been entirely impossible for me to collect the smallest legend on this peak; nor any indication except that of the iron ring and the great cavern of which Zschokke was told. I thought at first that I sponds with *sar*, Hebrew, *chief*, and *'asker* is connected with the Hebrew root *achkar*, to hire troops; the *ain*, additional, in the last word is purely prosthetic; we have already in Hebrew *achkar* with a prosthetic aleph, and the transformation of the aleph into the ain is frequent; thus Achkelon becomes 'Askalon.

could find some connection between the venerated *magam* of the Inam Aly-Joshua and the sacred *magam*, where Joshua stood while he spoke to the angel; but the Mussulman sanctuary is too far to the west to permit Sartabeh to be seen.

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## THE SURVEY OF PALESTINE.

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LIEUT. CLAUDE R. CONDER'S REPORTS.

### XXI.

28th April, 1874.

SINCE last I wrote from W. Far'ah the Survey, though still impeded slightly by wet weather, has been steadily advanced, and we are able by two days' work in subsidiary camps to fill in the whole piece required to complete the Jenin sheet, bringing the total to about 2,800 square miles, and giving the whole of the Jordan valley from the Dead Sea to within a mile or so of the Sea of Galilee. Our intermediate camp between Wady Far'ah and Beisan was placed at W. Maleh, and was by far the most desolate site which we have as yet been forced to select. A few fellahin and Arabs were settled not far off, and supplied us with guides and meat. The water in the neighbourhood is all more or less salt, whence the name given to the principal stream. We were therefore glad to remove to the plentiful springs and open rolling country of the neighbourhood of Beisan.

The following are the chief points of interest which we have noticed during the last fortnight:—

Yerzeh.

Yerzeh is a ruined site of very considerable extent, lying at the foot of the fine isolated hill called Ras Kader. The ruins seem of a late Græco-Jewish type, and the whole of the site is covered with a confused *débris* of moderately-sized rough-hewn stones, beneath which foundations are visible in parts. One or two stones have a broad flat draft, and seem rather to have been intended for tablets. Towards the north of the town are pillars and a fine lintel, probably remains of a temple. The ornamentation of the lintel with rosettes and the conventional vine is of the ordinary debased classic style. There are a considerable number of rock-cut tombs, internally very rough, and with loculi of both kinds; externally the circular arch above the door is very well cut, and in one case structural. A Greek inscription, illegible all but a few letters, with a rough ornamentation, is to be found on the front of one of these sepulchres. There are one or two moderate cisterns cut in rock. An ancient road leads by the spot at the foot of the hill.

Tyasir, like most of the old sites in this part of the country, is almost undermined with caves and rock-cut tombs. On the south-west of the village there exists, however, a very interesting little monument, of which I have taken very careful measurements. Tyasir.

It seems probably to have been a tomb, and its door is placed towards the east, the interior being square, with four corner piers, which supported a groined roof, as far as can be judged by the shape of the remaining haunch stones. The projection of the piers gives a recess on each side of the chamber, three of which may have been occupied by sarcophagi. A regular stylobate runs round the outside, and on it stand attached pilasters with a projection of only two inches; there are two intermediate and two corner pilasters on each face of the building. The projecting profile of the door is very curious, and resembles that at Nebi Yahyah to a certain extent. We did not succeed in finding any capitals, but fragments of cornice, with classic details and very rich foliated work, were lying near. The size of the stones, some over four feet long, their excellent workmanship, and the beauty of the carved work of the cornice, show that the monument\* must have been, when complete, a very fine one, and probably the property of a man of distinction.

The narrow gorge above the warm springs of El Maleh is commanded on the north by a fortress set in an almost impregnable position. With much trouble we reached the top, and executed a plan of the *enceinte*. It is irregular in shape, fitted like a modern redoubt to its rocky site, and surrounded, as usual in the Crusading buildings, with vaulted chambers. The masonry generally used is neither large nor well cut, but the corner stones of the fortress, both externally and within the principal gate on the north side, are all marked with a rough draft. Burj el Maleh.

Kaukab el Hawa, situated on the cliffs south of the Sea of Galilee, and visible from Beisan, seems to be also a Crusading fortress. Its *enceinte* wall, of great thickness (eleven feet), is built of blocks of black basalt, which are nearly all drafted. It is a point of considerable interest to determine whether such blocks were *cut* by the Crusaders themselves, or only used where found in older buildings. It has been argued that the Crusaders would employ lighter material, in order to allow of greater rapidity of construction; but strength seems in their days to have been the most important requisite, and in no fortress which I have as yet seen in Palestine is small masonry used in the outer walls of the place. Kaukab (Belvoir), standing on no Roman route, and with masonry which bears every sign of being intended for its present use, argues strongly in favour of the large drafted masonry having been actually quarried by the Crusaders. The Saracenic buildings, such as the great Khans, are, on the contrary, generally of smaller masonry, and in one instance (Caesarea) a sloping revetment of small stones in very hard cement covers the larger masonry of the Crusading wall. Kaukab el Hawa.

\* It was photographed and planned by Major Wilson, R.E. See Photo. No. 97, old series.

The plan of the fortress of Kaukab is irregular. There appears to have been a central building supported on vaults, and vaulted chambers ran round the town immediately within the wall. The gate on the east was closed by a portcullis, the place for which is still visible. A ditch fifty feet wide surrounds the fortress on three sides, but on the east a steep slope leads directly down to the Jordan valley.

Tells.

Attention was first drawn to the great interest of these curious mounds, which were first excavated at the same time by Captain Warren, who supposes them to have been fortifications. In a subsequent number of the *Quarterly* it was pointed out that similar mounds are in process of formation at the present day both in Egypt and in India, being made by the accumulating refuse of sun-dried bricks which are picked on these heaps, those which are spoilt serving as a sort of platform on which others are baked; thus gradually a mound accumulates, and would, when deserted and overgrown, present exactly the appearance of a tell. The tells are found in the Plain of Esdraelon, and in that of Acca, near the Kishon, but more especially in the Jordan valley. I have already given a list of the true tells near Jericho which Captain Warren found to consist of sun-dried bricks. Near Beisan, and in the plain south of it, there are twenty true tells, apparently of the same character with those at Jericho, besides other mounds formed of crumbled ruins to which the name tell is also applied. In confirmation of the latter theory of their formation I would call attention to one or two points. First, they occur invariably in the immediate vicinity of water, generally at a spring or beside a running stream. Second, they are always found in alluvial plains and in places where clay may be expected to exist; thus, for instance, at Beisan they are found in the "clay lands" between Succoth (generally supposed to be S'akût) and Zerthan, which was below Jezreel, where Solomon cast the brass work for the temple service. Third, they are known, at least at Jericho, to consist of sun-dried bricks. It has been remarked that they occur at the mouths of passes which they were supposed to defend, but I may remark that this is hardly a rule, as many are placed in positions which can have no military significance, whilst the wadies at whose mouths they are placed always contain water. Neither can they be held to defend the Jordan fords, for many important fords have no tell near them. Where they do occur along Jordan it is in places where springs or tributary streams flow down to the river. Their great antiquity is shown first by their being mentioned in the Bible at an early period (Geliloth); secondly, by their having been subsequently built upon in a few cases in Roman times. None of the true tells have, however, been identified with Biblical sites, unless, indeed, we except those at 'Ain el Sultan.

The shape and appearance of the true tells would also point to the same explanation of their origin. They are evidently accumulations. Often two occur close together of different size, or two or more small tells spring on a platform formed by a large one; sometimes a small subsidiary

mound, as though only lately commenced, will be found at the foot of a very large one.

The interest and importance of such remains can hardly be over-estimated. They form a key to the understanding of all the more ancient ruins in Palestine. Nothing is more natural and probable than that the Jews who in Egypt, as we know, were employed in the manufacture of bricks, and whose first possessions in the country were in the plains, should have resorted to this material for the rapid construction of towns, necessitated by the total destruction of the Canaanite cities. The method in which this destruction was made, its completeness and rapidity, seem to show that these cities themselves were of no great strength, and it is even possible that the brick-making may be carried back to Canaanite times. Of architecture as a fine art there seems good reason to suppose the Jews were ignorant, nor is there anything in the Bible or in the country to indicate that the towns of the early Biblical period were better built or more important than the present Syrian villages. In the time of Saul we find the people dwelling in caves, and there is much evidence which points to the old inhabitants of Palestine having been much addicted to such a practice. Even at the present day the natural caves and larger tombs are used as dwelling-places and stables.

In modern Damascus we have an instance of a city mainly built of sun-dried brick, and the chopped straw in its clay calls to mind the bondage of the Egyptian brickfields. Wood is used in combination with this hardened mud, and may have been in the early Jewish towns at a time when it was more plentiful than now. At the same time, it must be recognised that stone-quarrying was very extensively undertaken at some period of Jewish history, as is evidenced at the present day in every part of Palestine, though the period it is almost impossible to decide. In the hill country the use of stone must naturally have been greater than that of brick. So now in Palestine the hill villages are of stone, and those in the plains mere collections of mud huts.

The interest of the inquiry is very great in explaining how it occurs that the more ancient ruins of the country are mere mounds in which the presence of stone is scarcely discernible, and the grey colour of the mass alone distinguishes the site. Were brick supposed to have been extensively used, this peculiarity of the ruins of Palestine would be easily accounted for.

The survey of the extensive ruins of Beisan occupied some time, Beisan. and the twelve-inch map of the whole was executed by the corporals, whilst Sergeant Black accompanied me to the short camps at Kawkab and Sulem, where, with an average temperature of about 92 degrees in the shade, we completed the work to the northern line of the Jenin sheet. The principal Roman ruins are the Theatre, Hippodrome, and some large tombs. The tell fortifications are possibly crusading, and a ruined mosque, two fine viaducts, and a good-sized khan, no doubt Saracenic. The theatre, situate in the basin which isolates the tell, and through

which two streams flow, joining at the lower bridge, is built of black basalt, and in better preservation than most of the ruins of the country. It is a semicircle and a third, being closed on the north by a massive wall, the foundations alone remaining, including a block of marble six feet nine inches by four feet, which forms the chord to an arc of 120 degrees. Nine vomitories remain more or less perfect. They are double, and out of the western passage of each a narrow gallery leads diagonally to a cage open towards the interior of the theatre. Each cage is a hollow quarter sphere eight feet in diameter, and was no doubt closed by bars in front. There seems to have been twelve rows of benches eighteen inches high, but they are scarcely traceable beneath the rank growth of spring herbs.

The stream from a mill flows close to the theatre, and may have been turned into a basin of some kind for the naval entertainments.

The Hippodrome is almost entirely destroyed, and its plan recovered with difficulty. It appears to have been constructed by two circles seventy-six feet radius, with centres 128 feet apart. Its longest axis is nearly east and west; the entrance probably on the east. Stone seats eighteen inches high surround it on all sides. The base of what was probably one of the goals lies towards the western end of its greatest diameter line.

Capitals, fragments of ornament, and other indications, prove the great extent of the town, which stretched south of the modern village, and both north and south of the main stream of W. Jalúd. The tombs, cut in a soft sedimentary river deposit, in cliffs close to the stream, resemble in arrangement those at Sh. Abreik, with this peculiarity, that they contain sarcophagi larger than the loculi placed in a row parallel with the length of the chamber. We planned them carefully, but found no inscriptions. Not far from them, on the north-west, is a fine cistern or birket lined with hard cement, and once roofed over. A row of pillars exists close to it, and a large building seems to have stood on the spot. The extent of the Roman town we were able to make out, fully tracing its walls, nine feet thick, of black basalt, including an area of one-third of a square mile.

Gideon's  
victory.

There is perhaps no corner of Palestine where the events of Bible history crowd so thick upon one another as in that portion which we have just completed. On the north, the Sea of Galilee, with its sacred memories; on the west, Tabor and the hill Moreh, the Valley of Jezreel, and the chain of Gilboa; on the south, Succoth; and on the east the winding Jordan. But perhaps the history most fully illustrated by our present survey is that of Gideon's victory over Midian, and subsequent pursuit (Judges vii.). The nomadic hordes of the Midianites had, like the modern Beni Suggar and Ghazawíyeh Arabs, come up the broad and fertile Valley of Jezreel, and their encampment lay, as the black Arab tents do now in spring, at the foot of the hill Moreh (Nebi Dahy), opposite to the high limestone knoll on which Jezreel (Zer'ain) stands. As on the first night of our camping at Sulem (Shunem), when

six horsemen and fifteen foot of the Bedouin came down on the village and retreated, after stealing a horse and a cow, followed by the fellahin with shouts and a dropping fire, so in Gideon's time the settled Jewish inhabitants assembled to drive back the marauders. The well Harod, where occurred the trial which separated 300 men of endurance from the worthless rabble, was no doubt the 'Ain Jalúd, a fine spring at the foot of Gilboa, issuing blue and clear from a cavern, and forming a pool with rushy banks and a pebbly bottom more than 100 yards in length. The water is sweet, and there is ample space for the gathering of a great number of men. It has, however, like most of the neighbouring springs, a slightly sulphurous taste, and a soft deep mud covers the middle of the basin below the surface.

The graphic description of the midnight attack, when, no doubt concealed by the folds of the rolling ground, the 300 crept down to the Midianite camp "in the valley beneath," and burst on the sleeping host with a sudden flicker of the concealed lamps, can be most readily realised on the spot. The immediate flight of the nomadic horde is most easily traced on the map. "The host fled to Beth-shittah in Zererath, and to the border of Abel-meholah" (vii. 22), a course directly down the main road to Jordan and to Beisan. Beth-shittah may perhaps be identified with the modern village of Shatta, and Abelmea (as it was called in Jerome's time) with Wady Maleh. Zererath would appear to be a district name, and is generally connected with the Zerthan and Zeretan of other passages of the Old Testament. It is known to have been "below Jezreel," and near Beisan. I think, therefore, we can scarce doubt that the name still exists in the Arabic, 'Ain Zahrah and Tullúl Zahrah, three miles west of Beisan. Thus the immediate pursuit drove the enemy some ten or fifteen miles towards the Jordan banks. A systematic advance immediately followed. Messengers went south two days' journey to Mount Ephraim, and the Jews descended to the lower fords of Jordan at Bethbarah, which has been supposed identical with the Bethabara of the New Testament, and which was in all probability situate at the traditional site—the pilgrims' bathing-place near Kasr el Yehúd, east of Jericho. Meantime Gideon, having cleared the Bethshan valley of the Midianites, crossed by the fords near Succoth at its southern extremity (the modern Makhathet Abu Sús), and continued the pursuit along the east bank of the Jordan. The Midianites were thus entirely cut off. They appear (or at least some part of the host) to have followed the right bank southwards towards Midian, intending, no doubt, to cross near Jericho. But they were here met by the men of Ephraim, and their leaders, Oreb and Zeeb, executed on that side of Jordan, their heads being subsequently carried to Gideon, "on the other side." This confirms positively the theory which I offered somewhat cautiously in a former report, and makes the identification of the "Raven's Peak" and the "Wolf's Den" with the 'Ash el Ghor'ab and Tuweil el Dhiáb a natural and probable one. The sharp peak overlooking the broad plain north of Jericho would indeed form a natural

place for a public execution, which would be visible to the whole multitude beneath.

Additional interest attaches to the identification of Zererath or Zerthan, for it points to the locality where the Jordan was miraculously blocked during the passage of the Israelites. The Ghor or Lower Jordan valley is not continuous here; in parts the cliffs are closely approached, and a blockage of the river at one of these narrow places would leave its bed dry for a very considerable time, as a lake would gradually form in the wider basins above, and a rise of more than fifty feet, with a width of nearly a mile, could be obtained in place of a river some twenty yards in breadth. Such a blockage might any day be occasioned by one of those shocks of earthquake which from the earliest historical period down to the present day have been constantly felt in the Jordan valley, and which point to the volcanic nature of the agency which has caused this extraordinary depression.

Our work in this part of Palestine, including what we hope will prove the refinding of Gilgal, the settlement of the boundary of Judah, the identification of the rock Oreb, and yet more certainly that of the doubtful Ænon, with the explanation of the flight of Midian and the discovery of Zererath, cannot fail to be considered of the highest interest, and proves how much light the survey of Palestine must throw on the simple, exact, and graphic descriptions which abound in the Bible, and which are only apparently confused or contradictory because we in times so remote have almost lost the key to their explanation.

Antipatris.

Having finished the Jenin sheet, and carried up the Jordan to within a mile or two of the Sea of Galilee, we proceeded by easy marches to the Maritime Plain, and arrived at Kefr Saba on the 23rd, the fourth day from Sulem. Here about 120 square miles remain to be put in, which will complete the Jaffa sheet of the map; and to this work, after having settled the triangulation, which is here a matter of no small difficulty, I propose to leave the non-commissioned officers under Mr. Drake's care, starting myself for Jerusalem, in preparation for my home visit. When finished the party will move to Jerusalem, where they will await my return, employed in the execution of the plans.

The question of most interest in this part of the work is that of the site of Antipatris, and it seems to me that a very slight investigation of the ground is sufficient to decide the matter. The town built by Herod bearing this name in honour of his father was on the site of the ancient Kaphar Saba, the name of which still lingers at the village where our camp is now pitched. The points in favour of its identity, further than the preservation of the name, are, however, few. Antipatris was 150 stadia, or about sixteen miles, from Jaffa. Kefr Saba is rather more than fourteen. Again it was, according to the Onomasticon, twenty-six miles from Cæsarea, lying between it and Lydda. Kefr Saba is about twenty-five Roman miles from Cæsarea. On the other hand, it is said by Jerome to have been six miles south of Galgula, but Kefr Saba is about three miles north-west of Jiljulieh, which is possibly the

place in question, and nearly due west of Kalkilia, which might perhaps be identified with Galgula.

Antipatris was protected on the south by a ditch and wooden rampart, with towers constructed by Alexander Balas as a defence against the advance of Antiochus from the south. The Roman road from Jerusalem to Cæsarea led through Antipatris, which was surrounded by a river and by fertile wooded country, and situate close to a hilly ridge. All these latter requisites are quite inconsistent with the Kefr Saba site. No Roman road leads to it from the hills; no river is found, the water being from a couple of wells; no trees or ruins of a large town exist. The indication of direction is also a very important point (although slighted by Dr. Robinson), as it is far less likely to have become corrupted in copying than the numbers which indicate distances would be. It would seem, therefore, that the name has wandered from some other site in the neighbourhood, and become affixed to this modern village.

It remains, therefore, to find in the vicinity a site which shall fulfil the requisites enumerated and form a natural position for one of those noble towns which sprung up in Palestine during the prosperous times of Herod the Great. Such a site has been already suggested at Ras el 'Ain, where the ruined shell of the fine old Castle of Mirabel stands above the "wonderfully beautiful" springs of the Aujeh river. The fine Roman road which we have traced step by step from Jerusalem to Jifneh, and thence to Tibneh, descends the steep hills and runs down straight to Ras el Ain. It was by this road, as is now generally allowed, that St. Paul was hurried by night to Antipatris, whence he proceeded to Cæsarea. From Ras el 'Ain another Roman road, marked in one place by a milestone, leads along the foot of the hills to Jiljulieh and Kalkilia, and thence to Kaisarieh. It is the main road from Ramleh through Lydda, and Ras el 'Ain thus lies exactly between Lydda and Cæsarea, which cannot be said of Kefr Saba; still further, it is south of the site of Galgula, being three and a half miles from Jiljulieh and about six from Kalkilia. To Jaffa is eleven miles, to Cæsarea thirty Roman miles. These numbers, though less exact than in the former case, are yet approximately correct in comparison with the words of Josephus and Jerome. But what is more important to observe is that Ras el 'Ain is the natural site for a town in the neighbourhood. The streams which burst out round the mound are the surrounding river of Josephus. The hilly ridge rises just behind. The trees, indeed, are no more, having shared the fate of the great oak forest, the stumps of whose trees cover the sandhills from Mukhâlid to Jaffa, but there can have been no spot so likely to be fertile in the Plain of Sharon as the sources of the Aujeh. It would be interesting to find the ditch which was dug by Alexander Balas, and which was no doubt filled with water from the Aujeh, and intended as a more direct line of defence than that of the winding wady bed. Mr. Drake informs me that a ditch full of water some fifteen feet wide exists near the bridge, but this is some five or six miles from Ras el 'Ain and directed south-east. The trench reached the

"Sea of Joppa," according to Josephus, and has no doubt been filled in by the light soil of the plain and left no more trace than its wooden wall and towers. At Kefr Saba no signs of a trench are visible, nor is there any supply of water to fill it. Thus balancing the evidence as a whole, we arrive at the pretty safe conclusion that the Antipatris of Herod was, like his Jericho, built at the source of one of the finest springs in the country. A visit to the site, with its mound occupied on the west by the Kala'at, and presenting in other parts an appearance similar to that of the ruins of Roman Cæsarea—heaps of broken stone and occasional large blocks overgrown with the yellow composite flowers which invariably mark such spots—serves to strengthen this impression.

Geology.

The whole district passed through since leaving Jerusalem is geologically of the highest interest. I have already noticed the discovery of old sea levels and the very striking indications as to the date and mode of formation of the Jordan valley, on which I propose to offer the Committee a separate paper when my notes have been completed and digested. The great valley of Far'ah (not to be confounded with Wady Far'ah, near Jerusalem) is no ordinary water-worn depression, but has been formed by some considerable convulsion, no doubt at the same date as the depression of the Ghor, upon which it will throw considerable light. It marks a change in the character of the country. The dip of the beds north of it is much less violent, and an upper plain called El Bukeia forms an intermediate step between the Ghor and the hills of the watershed. Crossing this plateau we arrive again in another district where there is much local disturbance. Trap rocks here first appear on the east, and a very considerable outbreak is found in the upper part of Wady Maleh. The springs in the neighbourhood are more or less salt, as the name signifies. The stream in the valley has a temperature of about 85 degrees, and the so-called Hammam is a spring of 100 degrees Fahrenheit. A red marl similar to the formations of the Nebi Mûsa basin here appears in the lower hills near the Ghor; it overlies beds of red and white banded marls, and is in most places capped with a sort of conglomerate which seems to be of fresh-water origin, pointing to the probability that the present Plain of Succoth and Beisan was at one time a lake, one in the great chain of lakes which seem most probably to have extended from the Dead Sea to the Huleh.


On arriving at Beisan we again change the scenery and obtain a country purely volcanic. The hills of Gilboa have a general dip upwards towards the north-west, and from beneath them the hard black basalt comes out as noticed first at Zer'ain. The whole breadth of the Wady Jalûd has a basis of black basalt which has tilted up the limestones of Nebi Dahy (Little Hermon), and has formed various cones and small craters in its neighbourhood. Kaukab el Hawa seems to have been a centre of eruption, and a shelf on which Beisan stands is due to this disturbance. The basalt here overlies the white marls—a valuable indication of geological date. The hills north of Wady Bireh, bordering the Sea of Galilee, are principally basalt, the limestone where

it does crop out having a dip upwards towards the north-east. It is a remarkable instance of the ignorance of Palestine geology that this great field of basalt, extending over perhaps 200 square miles, is not shown on Lartet's map, though the smaller outlying fragments of it in some cases are.

## MR. TYRWHITT DRAKE'S REPORTS.

## XVIII.

CAMP IN WADY EL FAR'AH, *March 21, 1874.*

On the 24th ult. we left Jerusalem and descended to 'Ain el Sultan. *En route* we visited El Marassas and Shunet Marassas, a Christian ruin of considerable extent, containing the ruins of a church, of which two apses and a portion of mosaic pavement in red, yellow, black, and white are still visible. There are also a number of unusually large rock-hewn cisterns with well mouths; on one of these crosses  are cut on each of its eight sides. Tradition tells of a gentle recluse, named Kaddis K'raytún (the priest Chariton), who lived in days of yore. Suffering much annoyance from the thievish propensities and knavish tricks of his neighbours, he determined to extirpate them, and accordingly served round a draught of serpent's venom, which miraculously destroyed them all, notwithstanding its being a blood and not a stomach poison. After this the good monk lived long and happily.

Between Khirbet Dikki and Marassas we observed a ruined dolmen. The two top slabs were of considerable size: below this is a small semi-circular platform built against the hillside with unhewn stones, and lower down again is a small natural cave.

On the following day we rode down to the Dead Sea to fix a couple of piles for measuring the rise and fall of the water. These piles were made by Herr Shiek at Jerusalem, and are marked every six inches. It is to be hoped that all travellers will note the height at which the water stands on each at the time of their visit. They are placed opposite the Rijm el Bahr, or island at the north end of the sea. We drove in the first at the water's edge without difficulty, but the second, which had to be driven in water five and a half feet deep, was no such easy job. The joint exertions of Conder and myself, however, enabled us at last to cope with the excessive buoyancy of the water, which forced us to swim, and the strong current setting eastwards, which several times carried us away from our work. The use of a heavy mallet while swimming was a novel experiment and somewhat trying; it would have been impossible anywhere else than in water as buoyant as that of the Dead Sea.

A ride to the Jordan mouth, a *détour* back westwards to Wady Dabr, where we had a fruitless search after the basaltic greenstone mentioned by Dr. Tristram, and a light meal of eggs and rice in the tent of Shaykh Jemil abu Nusayr, completed our day's work.

The Dead  
Sea.

A curious fact with regard to the Dead Sea is to be noticed as showing that the bottom is still subsiding. At the southern end, the fords between the Lisan and the western shore are now impassable owing to the depth of the water, though I have been told by men who used them that they were in no places more than three feet deep some fifteen or twenty years ago. Again, the causeway which connects the Rijm el Bahr with the mainland has, according to the Arabs, been submerged for twelve or fifteen years, though before that time it was frequently dry. The Arabs say that the level of the water varies much in different years, and is not dependent on the rainfall, but on the sea itself, as they express it. The currents of this sea are curious and difficult to explain: that along the northern shore sets constantly eastwards, as is shown by the large pebbles at the north-west corner, and their gradual diminution in size towards the east, till at the Jordan mouth there is little but mud and sand. At 'Ain Feshkhal I formerly noticed a current running southwards.

On the northern shores there are no less than six distinct steps in the sea-bank; the two lower are thickly strewn with driftwood and canes. These banks are composed of fine water-worn shingle, and may be traced to a considerable distance up the Ghor, notably at Maydan el 'Abd, some three miles north of 'Ain el Sultan, where an enclosure is formed at the base of the hills about one mile long and half a mile broad. Into this area, which at first glance seemed of artificial construction, two or three small wadies drain, but, having no outlet, filter through the soil. The various geological sections seen in the side of the Ghor are very interesting, and explain the formation of the valley, which will, I think, be fully settled when the Geological Map undertaken by Lieut. Conder is completed.

The Jordan valley is now in full beauty. Wady Kelt is a swift, brawling stream, twenty yards wide and from one to three feet deep. The plain is covered with herbage knee deep, and decked with many bright flowers; deep-red anemones, lavender-coloured stocks, yellow mustard and marigolds, white clover and many coloured vetches, are the most conspicuous.

I have been surprised, however, at the comparative absence of bulbs, for besides a beautiful violet dwarf iris with white eye, I have only found two or three other species.

At this season there are enormous flights of wood pigeons (*Ar. jazel*), and also of starlings and jackdaws. In the summer the *Kata* or sand-grouse take their place. These latter birds drink every morning and evening, and consequently are always found nearer water during the extreme heat than in the winter, when pools are of frequent occurrence in the desert.

The first place we camped at north of 'Ain el Sultan was Wady Fusail, near the site of Khirbet Fusail, or ruins of Phasaclus, a town founded by Herod. At the present day traces of aqueducts and the foundations of ruined garden walls built of unhewn stone are all that remain of the

ancient city. This place is superstitiously avoided by the Arabs, who believe that it is haunted by a *ghuleh*, or evil spirit, and consequently never camp there. The Abu Nusayr men who accompanied us thus far took their leave as speedily as possible, and the relatives of the Emir el Dr'ayi of the Mesa'ayd Arabs soon left us, under plea of sickness, with only a slave as representative of their tribe. This desertion was due to no ill-will, for here they are most friendly and serviceable, but simply from dread of the *ghuleh*, as I with some difficulty discovered, for at first they attributed it to fear of raids from the south; but as I knew the Arabs in those parts to be friendly, I asked one of the Emir's sons point-blank whether they were afraid of a *jinn* or *ghul*, and with much hesitation and many blushes he avowed that such was the case. This fear of *ghuls* is not uncommon in the country, and I have seen several places said to be haunted by them which are carefully avoided after dusk by the neighbouring peasantry.

We obtained our guides from the fellahin of the neighbouring hill villages, who were pasturing their cattle in the luxuriant herbage of the Ghor.

Between this camp at Wady Fusa'il and our present one is a very remarkable conical hill called Kurn Sartabeh, or Horn of Sartabeh, who, according to the Arabs, was an ancient king who built the castle there. He is by some called Sabartalah. This horn or peak is a very prominent point, and visible from Hermon and from Moab, as well as from many places on both the eastern and the western hills. It rises some 1,500 feet above sea level, and consequently is 2,500 feet higher than the Jordan at this part of its course. An old path zigzags up a ridge from the south, and by this we rode up. To the west of the peak a ruined aqueduct, built of large roughly-hewn blocks, crosses a narrow watershed and leads to a series of cemented cave cisterns; this aqueduct, though of some length, was simply for the purpose of collecting rain-water. At the base of the cone is an artificial hollow on the west, while the other sides are so steep as to be practically inaccessible to assailants. A very steep ascent of 270 feet from this western ditch brought us to the top, where are solid masses of masonry with drafted stones having irregular rustic bosses, and varying in length from two to three and a half feet by two feet in height. This central construction was probably a beacon, and there are traces of a surrounding wall which has been violently overthrown, probably by an earthquake, in part at least, and the *débris* encumbers the eastern slope to a considerable depth. The stones employed in the construction are hard marbly limestone, seemingly dolomite, and very heavy. The labour of bringing them up to such a position must have been very great, as the nearest point from which they could have been hewn is nearly a mile distant. El Mintar, a fine beacon station near Mar Saba, is fully in view of this point, and is the probable line of signal communication with Jerusalem, which is hidden by the intervening hills from the north-west.

Kurn\_Sarta-  
beh.

A few days ago I rode over to visit this town, which must formerly Akrabeh.

have been the capital of the Toparchy of Ahrabattene, so frequently mentioned by Josephus and in the Books of Maccabees, though it is always the district and not the town referred to by these writers. The modern village is of considerable size, and contains houses better than those usually found in this country. The inhabitants boast that formerly they used to muster some 2,000 guns; now, through the constant drain on their resources by the government, they cannot collect one-tenth of that number. In the north-east part of the village is a mosque of some pretensions, built on part of the ruins of a Christian church. The side port of the mosque door is formed of the broken lintel bearing this portion of an inscription (τοῦτ)Ο ΕΠΟΙΗ(α)Ν ΤΗΡΕCΙΜΒΙΟΥ ΚΑΙ ΤΕΝΩΝ in *square* characters. In the chamber beneath the dome is another fragment . . . ΤΣ . . . ΕΝΤΩΑΤΙΩ. The ornamentation on both these stones is of similar character to that observed on the Christian ruins of the third to the fifth centuries in North Syria.

A fine tank of masonry stands conspicuously against the hillside in the centre of the village. The stones are roughly squared and packed with small chips; the wall on the lower side is nearly eight feet thick. The Husn or stronghold is a block of houses on the hill to the north-west. Some of the lower courses consist of blocks  $3 \times 2\frac{1}{2}$  ft. with rustic bosses, and appear to be Roman or Herodian. Within the enclosure, which can only be traced in part, is a fine rock-hewn cistern with well-mouth. This, though reputed to be only filled by rain-water, is said never to fail, and the water is much esteemed.

Several Roman roads have been traced in this part of the country, and will doubtless help us to fix the sites of several places, of which the names are now entirely lost, though mentioned in old itineraries.

When adverting to M. Ganneau's theory that the Hajar el Asbah, near the north-west part of the Dead Sea, is the stone of Reuben mentioned as forming a boundary mark between Judah and Benjamin, I advanced certain geographical reasons which seemed to me conclusive proof that the boundary line could not by any means have passed by the stone known by that name—marked in Van de Velde as Hajar Lesbah. If additional proofs were needed they would, I think, be found in the fact that the name is not uncommon amongst the Arabs. From this camp we have found both a Hajar el Asbah and an 'Arák el Asbah. The Mesa'ayd Arabs give the same meaning to the word as the Abu Nusayr, Ta'amirah, and other Arabs do in the south, namely, *streaked with white*. The Hajar el Asbah near here is a fallen block of yellow limestone with a white streak at one corner; it lies beside the road in a narrow gorge of Wady el Far'ah. The 'Arák or cliff is distant some seven or eight miles to the north, and is called so for a similar reason.

Hajar el  
Asbah.

## ON THE IDENTIFICATION OF ÆNON.

BY LIEUT. CONDER.

THE true position of the springs of Ænon, where John the Baptist is recorded to have assembled crowds for baptism, has hitherto been a matter open to dispute; but it is probable that the light thrown on the subject by the present Survey will be sufficient to set the question at rest.

Three sites have been proposed for Ænon, and the great distance between them shows how meagre the literary indications of its position are. The first of these is the traditional site of St. Jerome, some eight miles south of Scythopolis or Beisan, and not far from Succoth. The existence of a Tell Salim has been pointed to in favour of this view, but the name, as most carefully collected by us from several individuals, is Tell Sárem and not Salim; thus the only confirmation of the tradition proves founded on a mistake.

The second site which has found favour with many authors, including Mr. Hepworth Dixon and Dr. Barclay (City of the Great King), is at the springs in Wady Far'ah, one of the heads of the great Wady Kelt (the traditional brook Cherith), where there is generally a good supply of water. The same name Salim has been sought in the neighbourhood, and supposed either to refer to Jerusalem, or to a Wady Salim, the proper name of which, however, turns out to be Suleim.

Dr. Robinson, however, was the first to point out the most probable site, and has been followed by Dean Stanley, although the full confirmation of this view has not, I believe, been as yet put forward.

John the Baptist is said to have been baptizing "*in* Ænon, near to Salim, because there was much water there." There is nothing to point to the place having been on the banks of, or even near to Jordan, where this particular expression would have little or no meaning; it would rather seem to refer to a part of Palestine which was otherwise not well supplied with water. The expression, "He that was with thee beyond Jordan," would also seem to indicate that the place of baptism in question was not east of the river. Ænon might very well be thought to be a district name from the preposition used in the Greek.

Now, due east of Nablus is found the village of Salim, a Salem mentioned more than once in the Old Testament, and even thought by some to be the city of Melchisedec, and north of this, as Dr. Robinson pointed out, are copious springs in a broad open valley. Curiously enough this also, like the Jerusalem site, bears the name of Far'ah, though spelt rather differently in the Arabic. The most satisfactory confirmation of the theory is found in the preservation of the name Ænon in the modern village of 'Aynún, which is marked on Vandervelde's map at a distance north of the springs (three or four miles) about equal to that of Salim on the south. Thus the requisites of two names and an

abundant supply of water are satisfied, although the existence of 'Aynún appears hitherto to have escaped notice.

The character of the ground is a point of great importance in considering the relative probability of the sites near Jerusalem and near Nablus. The former, Wady Far'ah is a precipitous ravine in the midst of a stony country, and apart from any main line of communication. It would be practically impossible to collect a large crowd in such a spot.

The Nablus site, on the other hand, seems naturally to suggest itself for such a purpose: an open valley, a plentiful supply of water, and a situation on one of the main lines through the country from Jerusalem to Nazareth. It has been suggested that our Lord's journey through Samaria was with the object of visiting the Baptist, and were such the case, he "needs must" pass by Shechem in order to arrive at the springs of Wady Far'ah.

This important valley, which forms a great geological feature in the country, rises near Salim, and separates Mount Ebal from the chain of Nebi Belán. It becomes a deep and narrow ravine, with steep hill sides burrowed with caverns, and runs north under the name of Wady Beidán until it forms a junction with another branch near the small ruin called Burj Far'ah. Here the first springs are found, and a stream, which even late in the summer is copious, runs between bushes of oleander eastward towards the Jordan. The whole course of the valley presents here a succession of springs, and the flat slopes on either side allow the approach of an unlimited crowd to the banks of the stream. After passing through two narrow rocky gorges, the valley enlarges into a broad plain, on the south side of which rises the block of the Kurn Súrtabeh. From this point the course of the bed is remarkable, and has never been correctly shown on any map. For nearly seven miles the Wady Far'ah runs parallel with the Jordan, and its final junction is below the latitude of 'Ain Fasäil.

The position of Ænon, or rather of the springs frequented by the Baptist, may therefore be with some degree of certainty referred to the upper source of the Wady Far'ah stream lying, as has been shown, between Salim and 'Aynún. It is one of the most picturesque spots in the country, and the mind easily pictures the wild figure of the Fore-runner, clad in garments precisely similar to the modern Bedouin, and assembling round him the turbaned denizens of the great cities and the half-clad villagers in the wild glen, remote from the more civilised life of the hill towns and hamlets.

## ANTIPATRIS.

IN 1866, when making an excursion to Cæsarea and Athlit with Captain Anderson, R.E., and Dr. Sandreczky, I stayed for two days at the large fountain of Ras el Ain, and came to the conclusion that

the artificial mound above it, which is now crowned by the ruins of the Crusaders' Castle of Mirabel, marks the site of the town of Antipatris, at which St. Paul rested on his journey from Jerusalem to Cæsarea. Antipatris has generally been identified with the modern village of Kefr Saba, some distance to the north of Ras el Ain, on the Maritime Plain, but there are good grounds for doubting the correctness of this identification. I had hoped before discussing this question to have been able to consult Lieutenant Conder's survey of this portion of the plain, but as my friend Dr. Sandreczky, who independently came to the same conclusion as myself with regard to the position of Antipatris, has recently published a paper on the subject in the "Ausland," it may interest the subscribers to the Fund to know the grounds upon which our opinion has been formed, without waiting for the arrival of the map, especially as Lieutenant Conder has adopted the same identification after a careful survey of the ground.

Our information relating to Antipatris is obtained from the Bible, Josephus, the Talmud, and early itineraries. In the Bible we are told (Acts xxiii. 31, 32), that "the soldiers, as it was commanded them, took Paul, and brought him by night to Antipatris. On the morrow they left the horsemen to go with him, and returned to the castle," whilst we gather from verse 23 that they were to start at the third hour of the night.

Josephus, *Antiq.* XIII., xv. 1, states that Alexander Jannæus, in order to prevent the march of Antiochus from Syria southwards along the Maritime Plain, "dug a deep ditch, beginning at Chabarzaba, which is now called Antipatris, to the Sea of Joppa, on which part only his army could be brought against him. He also raised a wall and erected wooden towers, and intermediate redoubts for 150 furlongs in length, and there expected the coming of Antiochus; but he soon burnt them all, and made his army pass by that way into Arabia." The parallel passage in the Wars I. iv. 7, informs us that Alexander "cut a deep trench between Antipatris, which was near the mountains, and the shores of Joppa; he also erected a high wall before the trench, and built wooden towers, in order to hinder any sudden approaches. But still he was not able to exclude Antiochus, for he burnt the towers, and filled up the trenches, and marched on with his army." In *Antiq.* XVI., v. 2, we are told that Herod "erected another city in the plain, called Capharsaba, where he chose out a fit place, both for plenty of water and goodness of soil, and proper for the production of what was there planted; where a river encompassed the city itself, and a grove of the best trees for magnitude was round about it. This he named Antipatris, from his father Antipater;" and in the Wars I., xxi. 9, that Herod built a city "in the finest plain that was in his kingdom, and which had rivers and trees in abundance, and named it Antipatris."

In describing the march of Vespasian from Cæsarea, Josephus

says (Wars IV., viii. 1) that he led his army to Antipatris, and after remaining there two days marched on, laying waste the places about the toparchy of Thamnas, and proceeded to Lydda and Jamnia. The Jerusalem Itinerary gives the following distances:—Lydda to Antipatris, 10 miles; Antipatris to Betthar, 10 miles; Betthar to Cæsarea, 16 miles; and Eusebius and Jerome make Antipatris 6 miles south of Gilgal; the Antonine Itinerary makes Betthar 18 miles from Cæsarea and 22 from Lydda, or 40 from Lydda to Cæsarea in one itinerary, and in another 31 from Cæsarea and 28 from Lydda, or a total of 59 miles. Neubauer informs us, "*La Géographie du Talmud*," p. 86-89, that the names Kefr Saba and Antipatris are both found in the Talmud, and he infers from the manner in which they are mentioned by the different writers that they were two separate and distinct places. In one passage the coasts of Antipatris are mentioned in connection with those of Yischoub, possibly Arsuf, and from this it has sometimes been assumed that Antipatris was a coast town, an opinion held by William of Tyre, and other writers of the middle ages, who identified it with Arsuf. It is, however, impossible to reconcile any position on the coast with the notices in the Bible and Josephus, and we can only suggest that the expression arose either from the establishment of a district of Antipatris, which reached to the sea-shore, or from the use of the river Aujeh as a means of transport by boats, which would make Antipatris in a certain manner a sea-port. In the eighth century there was a large Christian community at Antipatris, and Theophanes alludes to a massacre of them by the Arabs in 744 A.D.

From the Bible we gather that Antipatris was on the military road connecting Jerusalem with Cæsarea, and at a point whence it was convenient for the guard of horsemen to continue the journey without the foot soldiers; from Josephus, that the town was in the plain, yet near the mountains, *παράριον*, that it was abundantly supplied with water, "rivers in abundance," that the soil was fertile, and that it was a point in the line of defence taken up by Alexander Jannæus across the Maritime Plain. Josephus, in one passage, tells us that the line of fortification began at "Chabarzaba, which is now called Antipatris;" and in another that Antipatris was built "in the plain called Capharsaba," at a place where there was plenty of water. These two passages are somewhat at variance, and the latter would almost lead us to infer that Antipatris and Capharsaba were distinct places, a view supported by Neubauer's reading of the Talmud.

Let us now see how the two sites Ras el Ain and Kefr Saba respectively meet the required conditions; at Ras el Ain there is a large mound, apparently artificial, covered with old foundations, broken columns, &c., and evidently the site of a place of some importance. On its summit is a large mediæval castle built, at least in part, on the foundations of a much older building; and at its foot are the largest springs, without exception, in all Palestine, far exceeding in volume

those of the Jordan at Tell el Kady. A small river rises at once from the ground, and flows off noiselessly, through marshy ground, to the sea. The springs are the only ones in the neighbourhood, and are probably the "Deaf Fountains" of the Crusaders, the castle being Mirabel, a name which still lingers at the mills of El Mir lower down the stream. Ras el Ain is sufficiently close to the mountains to be called *παρόριον*; it is on a rich portion of the plain, and conveniently situated with reference to the Roman road from Jerusalem, which strikes the plain immediately to the east of it. Kefr Saba lies on a mound partly composed of rubbish; there are fragments of columns and old foundations in the village, and also on some small mounds to the east, where traces may still be seen of the Roman road to Cæsarea. There is no running water, and no spring, the villagers deriving their supply of water from two deep wells, and rain-water which collects in winter in two hollows. The position of Kefr Saba out in the open plain cannot be said to be near the mountains, and as it is some seven or eight miles from the point at which the Roman road from Jerusalem to Cæsarea left the mountains it can scarcely be considered a suitable place for changing the guard from foot to horse soldiers. The name is certainly identical with the Capharsaba of Josephus, but as we have previously shown there are some grounds for believing that Kefr Saba and Antipatris were distinct places. We may now turn to the military aspect of the question, and ask what would be the best line of defence for an army to take up on the plain to prevent the march of a force southward. To this there can be but one answer, the line of the Nahr Aujeh. From the fountains at Ras el Ain to the sea the river is deep, unfordable for several months in the year, and has in several places marshy banks. It must thus have always presented a serious obstacle to the advance of an army, and one which no soldier acting on the defensive would neglect to make use of. Between Ras el Ain and the foot of the mountains there is but a comparatively narrow strip of level ground, forming a pass, through which any force advancing southwards must march, and one that could be easily closed by towers and a ditch. That the Crusaders were not ignorant of the military value of this feature is apparent from the ruins of the castles of Mirabel and Mejd el Yaba, guarding each flank of the pass; and if Antipatris were at Ras el Ain, Herod, in selecting the site, was no doubt influenced by military considerations. Any line of defence from Kefr Saba to the sea would be almost useless, and the features of the ground do not lend themselves to a work of this kind. The distances in the itineraries differ considerably, and until Betthar, the intermediate station between Antipatris and Cæsarea, can be identified, it is difficult to draw any inference from them. In the Jerusalem Itinerary ten miles have been lost apparently between Betthar and Cæsarea. Jerome, however, states that Gilgal was six miles north of Antipatris, and there can be scarcely a doubt that the former place is represented either by the modern Jiljulyeh, which lies south of Kefr Saba, but some three and a half miles north of

Ras el Ain; or by Kalkilia, which is nearly due east of Kefr Saba, and about six Roman miles north of Ras el Ain. The distance from Lydda to Ras el Ain is eleven and a half Roman miles, which agrees fairly with that given by the Jerusalem Itinerary between Lydda and Antipatris, viz., ten miles.\*

C. W. W.

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## THE SECOND STATEMENT OF THE AMERICAN PALESTINE EXPLORATION SOCIETY.

WANT of space prevented the notice of this number in our last issue. It is dated September, 1873, and copies were received at the London office in January of this year. It contains the following papers:—

- (1.) The Greek Inscriptions at the Nahr el Kelb, by Professor J. A. Paine.

" The Nahr el Kelb, the Lycus, or Wolf River of Strabo, descends from the side of Sunnin, a prominent peak of Lebanon, and flows into the Mediterranean five miles south of Beyrout, after a short course of twenty miles. It forms a natural road to the heart of the Lebanon and over to Cœle-Syria, and as such has been used from very early times. The river finds its way to the sea between perpendicular ridges of rock, round and over the southern of which the road is carried at an elevation of a hundred feet above the water. Another more ancient road is carried over the ridge at a higher point. On the lower road Professor Paine discovered three Greek inscriptions, one on a stone in a Roman wall and two cut in the rock. The most important one has already appeared in the *Quarterly Statement*.

The other two have not yet been read. Professor Paine appends an extremely interesting essay on the meaning and value of the inscription.

- (2.) A Paper on the "Nosairees," by Mr. Augustus Johnson.

This singular people, called by the Rev. Mr. Lyde—who wrote a volume, "The Asian Mystery," on them—the "Ansairiyeh," are considered by Mr. Johnson as descendants of those sons of Canaan who were in possession of Arka, Arvad, Zimra, and Sin, on the sea-shore, and of Hamath, when Abraham came from Ur of the Chaldees. They have a tradition that their ancestors were driven by Joshua out of Palestine, and they call their castles by Jewish names, such as Joshua, Solomon, John.

Recent discoveries of MSS. show that the creed of this people is a confused *mélange* of idolatry, Judaism, Christianity, and Islamism. They recognise the prophetic character of Jesus Christ frequently; quote the

\* This notice was written before I had an opportunity of seeing Lient. Conder's report No. 22, which contains some additional details. When the map reaches England it may be possible to reconcile the discrepancies in the itineraries rendered above.

names of the apostles, and many passages from the Psalms and New Testament; they revere the name of Mary; observe the feasts of Christmas and New Year's Day according to the calendar of Julian; they celebrate Epiphany, Palm Sunday, Easter, and some of the apostles' and saints' days, and in their Communion service they use consecrated wine. From the Jews and Moslems they have borrowed ablutions and circumcision, and have adopted Moslem names, except those of Omar and Abu Bekr, whom they curse and abhor. They quote much from the Koran, but obtain many features from the Sabians and Magians, as appears from the respect they pay to light, fire, and the heavenly bodies.

In their writings Mahomet and Christ are referred to as the same person manifesting himself at different epochs.

(3.) The Hamath Inscriptions, by William Hays Ward, D.D.

This paper contains a proposed restoration of the inscriptions from squeezes taken by Lieutenant Steever and Professor Paine. As, however, plaster-casts have since been received of the stones, these restorations are now chiefly valuable as records of ingenuity and labour. Mr. Hyde Clarke points out that, in the essay accompanying the plates, his own work, published in the *Quarterly Statement* for April, 1872, has been adopted by Dr. Ward without acknowledgment.\*

(4.) Husn Sulayman, by the Rev. Samuel Jessup.

This is a careful and interesting account of the ruins in North Syria which bear the name of Husn Sulayman, or Solomon's Stronghold, a name probably given by the Nosairees. It lies at two days' ride north of Tripoli. The ruins are extensive, consisting of two principal enclosures, of which the southern is the larger and more important. It is a rectangle 450 ft. by 280 ft., and from 10 to 40 ft. high. There are four great portals, each in the centre of a wall, with carved lintels and ceilings. On the stones of the wall were found inscriptions in Latin and Greek. Within the area stands an Ionic temple in ruins. A smaller temple stands in the northern enclosure. The history and date of these ruins remain yet to be discovered.

(5.) "Our First Year in the Field."

This is an instalment of Lieutenant Steever's work, bringing the reader down to the commencement of the Moab work. Lieutenant Steever arrived in Beyrout on Jan. 6, 1873, Professor Paine having reached that place a week or two before him. After many difficulties at starting, the expedition set off from Beyrout in March. The following is from Lieutenant Steever's report, which embodies Professor Paine's notes:—

\* In the last anniversary address of the Philological Society is a report by the Rev. A. H. Sayce referring to Hamath. The connection of the Hamath with the Babylonian is there referred, under the date Oct. 1873, to M. Lenormant, as well as the indication that the claims of Phœnicia to precedence in the arts of civilisation must be disputed. This had previously been pointed out in these pages by Mr. Hyde Clarke, for whom we may fairly claim precedence.

"The expedition consisted of the following members :

Edgar Z. Steever, junr., A.M., Lieutenant U. S. Army, chief engineer and surveyor and commander.

Rev. John A. Paine, archæologist and naturalist.

Rev. Alanson A. Haines, first assistant engineer.

Wm. G. Ballantine, A.B., second assistant engineer.

George Subbet, native of Damascus, a student of the Protestant Syrian College of Beyrout, interpreter.

Bishara Abou Shafateer, native of Beyrout, a graduate of the Protestant Syrian College, a collector in the Department Natural History.

Melville B. Ward, first general assistant."

We extract the following from the report :—

"We had nine riding animals and twenty-seven pack ones, with the usual number (eighteen) of muleteers, some of whom brought along young mules and donkeys for their own use, to the number of eight. This large number of mules was rendered necessary by the lack of all facilities east of the Jordan. All our boxes for the collection of specimens in mineralogy, zoology, and botany, for transporting squeeze paper, books, and instruments, as well as a three months' supply of provisions, had to be prepared in Beyrout and conveyed to some safe dépôt, convenient to our field of operations. Every preparation has been made with care and thoroughness. The engineering and astronomical instrument cases were covered with canvas, and carefully packed in boxes; the mercurial barometers slung over the back, and the chronometers, transported by hand, under the superintendence of Mr. Ballantine.

On the way a digression was made to inspect a number of sarcophagi on the hill-side, so very large as to be visible from the road. They proved to be forerunners of Khân Khulda. For nearly half a mile the mountain side is sprinkled with these sarcophagi, commonly of great size, rivalling even those of the sacred bulls at Sakara, in Egypt, nearly all more or less worn—as deeply water and weather worn—as deeply as the unhewn natural rock beside them. Occasionally they were unbroken, evidently untouched or unmoved from their original position. In these the great weight of their massive covers has been their perfect security. Here and there caverns occur, some of which are manifest extensions of natural caves, while others are cut out of the rock. Both have side chambers on either side for the reception of moderate-sized sarcophagi.

Almost directly east of the Khân, one-third the way up the hill-side, foundations remain of buildings whose great stones at once suggest Phœnician or Greek work, but no trace of a bevel could be detected along their edges. A portion of these constructions do not appear to be merely foundations, but resemble low walls and show a turreted top.

Inscriptions are said by Mr. Porter (*Handbook*, p. 380) to be wholly wanting; but this is not the case. I soon found one, in a niche, of three short lines, beginning ΙΟΤΑΙΑΝΗ, a mortuary record, standing at the

head of one of the smallest sarcophagi there, not over four feet in length on the inside. On the long outer edge of another sarcophagus cover I discovered another inscription, too old and washed away to be copied. A squeeze might bring out something legible. The first I find De Sauley saw and Waddington has taken it from him (*Voyage en Syrie*, pl. 3, 1864). The second is altogether likely to be new. A thorough search, I feel assured, would reveal others of high interest. Indeed, while copying the first one, a crowd of boys came panting up from the Khân with the keeper of the establishment himself, who told me of a very deep bir far up on the hill, near which there was writing, and the name of another place where inscriptions exist.

All that is left of the ancient town of Porphyreon is a single granite column with a sarcophagus by the hamlet of el Jiyeh near the Khân Neby Yunas. A Phœnician site has been replaced by a few old gnarled, starved tamarisks, beside a Moslem well. Porphy-  
reon.

Crossing the Ras Jedrah, a few old foundations were observed near a little Khân, uncovered and dug over afresh for building stones. This may have been the site of the fortress of Platana. Platana.

A little way south of Sidon, beside the road, lies an almost perfect Roman milestone, bearing the names of Septimius Severus, and of his son M. Aurelius Antoninus Augustus, more generally known as Caracalla, and dating from the year 198 A.D. It is a plain column of grey granite nine or ten feet in length. A short walk along the sea-side or over the cape southward reveals the fact that Ras Surafend must have been built upon throughout its extent in ancient times. Near at hand are remains of an aqueduct, which most likely conveyed the water of 'Ain Kanterah round the point. Here are foundations, and there stone presses, still entire. The whole bank facing the sea is full of pieces of glass, potsherds, and fragments of tiles. Roman  
Milestone.

All the way across Ras Surafend—the site of ancient Zarephath, Sarepta—we saw evidences of former inhabitation, in old foundations, walls, &c., and pits, from which their materials had been removed. About el-Khudr we noticed a short granite column still standing, large pieces of marble capitals, and a fine sarcophagus in the very place it was cut from the native rock. Sarepta.

Just after passing the ruins of 'Adlan, with its caverns hewn in the opposite cliffs, my attention was attracted by a number of stones standing upright at some distance from our route, nearer the sea-shore. Riding up to them they struck me at once as rude stone monuments of high antiquity. Before reaching them, two hundred feet or more, in the open field lay a large, heavy stone, two feet high, three feet long by two wide, having in its smoothed, flat surface an excavation eight inches deep, about as wide and one-third longer. Before the day was over I found several others of the same sort; and the only conclusion I could arrive at respecting their character and use, was that they are ancient altars. This cutting, sunk deep in the top, was intended and employed for the fire of wood or coals, while the victim was laid across, 'Adlan.

above, from one side to the other of the excavation. There were now, of course, no traces of fire remaining on the well-weathered stone; but the bottom of this opening in every case was rough, and in some cases deeply cracked by gaping lines, with rounded edges. On the very summit of Ras-el-Kelb, north of Beyrout, two months or more ago, I came across a similar artificial depression in a point of rock between three and four feet high, which preserved every appearance of having been designed and long resorted to as a place of sacrifice. This one, however, had an outlet cut down one side of the excavation, leading down the side of the rock for a distance of two feet. These rough stone monuments occupied a position in the lines of low walls running along the ground in the form of an exact rectangle, about two hundred feet in length, lying in an east and west direction. The front, forty feet wide, was placed thirty feet before the line of the upright stones. Midway between the front wall at the surface of the ground and these pillars stood two low ones, respectively eighteen inches and three feet high, and not more than three feet apart; they seemed to guard the entrance to the sanctuary. Coming to the upright stones themselves, they were found to be ranged in a parallelogram directed north and south, with sides about forty by twenty-five feet in length. Five out of seven were standing on the east side of this parallelogram—only two on the west side; the complete number, four, were standing on the south end, and none were remaining in their upright position along the north line. Of the fallen stones, some were still lying in their places, particularly on the west side; others had been carried a little way out of place—two beyond the north-west corner, and one sixty feet away to the west. Of the upright stones only one was leaning, and that inward—the fourth one from the south corner of the front line. All these pillars were rectangular blocks, two feet wide by twelve to fourteen inches thick, standing five to seven feet out of the ground. To have kept this position so long a time, there must be from two to four feet more hidden in the earth. They bore no traces of workmanship, other than what had been necessary to cut them from their quarry. Of all, one side was rough rock, the other three were as smooth as hewing from their native places would make them, and no more. In every case the hewn, flat side was turned inward, and the rough, untouched side outward from the interior of the sanctuary. The material was the loose sandstone of the shore rock. Continuing on toward the west, the rectangular outline along the ground was kept up for about one hundred and fifty feet. Fifty feet from the western end, half way from the north and south lines, lay a large stone heap. Outside on the south was a stone mound, among whose *débris* a circular stone curb, five and a half feet in diameter, was noticed. Outside on the north was placed another block of stone nearly square, but with rounded corners, having a square excavation from three to seven inches deep—apparently another altar. Half way to the sea and a little to the north a cavern well was located, with steps leading down to its clear and

abundant water; around were scattered basins and troughs of hewn stones—some entire, others broken in the middle, or to such an extent as to be entirely unfit for use—in many forms, round, square, and rectangular. I cannot but believe that these upright stones are veritable dolmens connected with early Phœnician worship."

The expedition remained in Moab till the end of August. A base line, five miles long, from ten to fifteen miles from Hesban, was measured, and nearly five hundred square miles of the country triangulated. Long despatches have been received on the work and are promised for the next *Statement*.

The above is a brief account of the contents of the American *Statement*. Lieutenant Steever returned to New York in the autumn of last year, but we learn from the secretary that the sum of 60,000 dollars has been raised, and that a new expedition is about to start thus provided with nearly three years' funds in advance. We wish the American Society every possible success.

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### THE SHAPIRA COLLECTION.

It was not to be expected that the evidences unearthed by M. Ganneau and Mr. Drake as to the real character of a large part, if not all, of this collection, should have passed unchallenged. We published in the April *Quarterly Statement*, together with the confessions of the old man Abd el Baki and the apprentice Hassan ibn el Bitâr, a letter from Mr. Shapira, stating that he, with Pastor Weser, had found seven vases with inscriptions. These inscriptions have not been copied and sent to England, like the preceding. Lieut. Conder wrote also on March 19th, giving an account of an expedition which paid a visit to Moab, unaccompanied by Mr. Shapira. They found no vases with inscriptions, nor any but Roman pottery. On the other hand, the Arabs of Arâk el Emir produced more than forty pieces of pottery resembling the Shapira Collection.

On April 4th Pastor Weser wrote a letter to the *Athenæum* giving his arguments why the pottery should be considered genuine. In this he states that he had made three journeys to Moab. In the first, not being guided by Selim—he does not state the name of his guide—he found twelve pieces of pottery, plaster with inscriptions, and broken pieces of figures. In the second, Selim el Kari guided him to a spot where he found seven vases with inscriptions; in the third, which was that mentioned by Lieut. Conder, he bought pieces not inscribed.

He further states that the potteries had all been searched, but nothing suspicious was found.

Selim's house was also searched, but no proof of forgery found. This, with the preceding, was after M. Ganneau's second letter to the *Athenæum*.

An article called "Chauvinism in Archæology," written by Professor

Schlottmann, was published in the *Nord Deutsche Allgemeine Zeitung* of April 12th. As this took the form of a personal attack on M. Clermont-Ganneau we do not reproduce any portion of it.

On March 30, 1874, the following letter from M. Ganneau appeared in the *Athenæum*. The Committee of the Fund publish this, in justice to their officers, and by the kind permission of the proprietors of the *Athenæum*, but they can in future publish only *new facts* in the affair.

JERUSALEM, March 30, 1874.

I think that I have amply shown, in my second letter on the pseudo-Moabite pottery (*Athenæum*, March 7, 1874), that we may consider the method of defence set up by the principal culprit as equivalent to a confession, and that to the bundle of proofs already published I might add the avowal, so to speak, of the accused. Selim, not calculating the force of the weapon he was wielding, has struck himself.

I only return to the subject to open the eyes of those persons who are not yet shaken in their sanguine convictions. These persons admit two things:—

1. That Selim, the principal agent, has imprudently lied in accusing me of a stupid machination.
2. That, nevertheless, he did not fabricate the pottery picked up on his own indications.

We may ask, first, how to explain Selim's lie, perfectly useless to himself. As he did not hesitate before this invention, we must hold him morally capable of a material as well as a verbal imposture.

But, it may be argued, "there is a great difference between moral possibility and material execution. We grant that Selim has given the measure of his sincerity by the absurd accusation which he raised against you. He is, further, a fellow whom we have ourselves always mistrusted. Still, it is absolutely impossible to conceive that an Arab should have invented these figures and vases covered with Moabite inscriptions."\*

I have heard this objection made and repeated by many persons here, who attached great importance to it, and said that if Selim was really the author of these objects he ought to be the first professor in the world, and that the poor devil has neither the necessary talents nor the knowledge to devise and execute a whole collection of ceramic art and a *corpus* of inscriptions.

First of all, I call attention to the rudeness of the things, from the artistic point of view. One does not require to be a great sculptor to fashion these infantine figures, in which their most ardent partisans, like Mr. Dunbar Heath, can only praise the "style and type of gro-

\* My own opinion is, that Selim fashioned the objects and made the inscriptions, and that he only had recourse to the potters for the preparation and baking of the vases. I have never been tempted, for my own part, to address the potters to see if I could obtain anything similar to those said to have come from Moab. If any attempt has been made in this direction, I am a stranger to it, knowing beforehand that it would be useless.

tesque uncouthness all their own." Moreover, the inscriptions with which they are covered, in "Moabite characters," are untranslatable save by some *savants* more courageous than fortunate, to whom we owe versions, entirely contradictory, of a small number of these texts.

This premised, I go on to prove that Selim *knows how to draw well enough, and that he has a sufficient knowledge of the Moabite character to be the author of the pottery.* He is a painter by trade, and daubs canvases with religious subjects for Greek pilgrims.

Here, for instance, is a fac-simile drawing, made by his own hand, under my eyes, and in my house, five years ago, when he first entered into negotiations with me about the Moabite Stone. It is a sketch drawn from memory, and representing a statue of Lot's wife, which he pretended to have seen three or four hours' distance from Dhiban, on



the shores of the Dead Sea. A woman bears a child on her shoulder in Arab fashion; in the right hand she holds a jar. On this scrap of paper that I have exhumed from my portfolios are, besides, a study of a camel, extremely simple, and the commencement of my own portrait (!).

Certainly, I do not say that Selim's *chef-d'œuvre* would have the same success as my friend Holman Hunt's "Shadow of Death," if exhibited in Bond Street; but it proves that he understands drawing well enough to model those "Moabite" statues, which would not be out of their place among the gingerbread figures at a fair.

So much for the artistic side. Pass now to the inscriptions. In my first pamphlet on the Moabite Stone (1870), I mentioned, among other things which aided me in restoring the mutilated text, a copy of several

lines of the inscription executed by an Arab of the city, who had seen the original before its destruction. This Arab was Selim el Gari.

In fact, towards the end of 1869, I received from him, then in the land of Moab, through M. Bergheim, a copy containing three lines in Moabite character, with a sketch of the stone, its dimensions, and certain words in Arabic, of which the following is a translation:—"This is only one line of the lines, of which there are forty. It is among the ruins of . . . (word effaced). It is five palms long, and three broad."

The name of Dhiban had been purposely obliterated; I do not know by whom, or why. But as my attention had been some time before called to this monument, it was not difficult for me to guess the name effaced.

Later on, Selim returned to Jerusalem, came to me, and gave me a copy of a much larger part of the inscription (lines 13-20) of which, before, he had only sent me a part.

This copy, made from left to right, and with no indications of lines, was accurate enough to be of considerable use. I verified it by aid of

7X+Y. 49W+.X4789+Y: X7999. WY. 73  
 4767651716X9W9. 6075. X4. XH4Y6. W  
 4. 26. 4W X4ZY1X4 H WXY1W4H740YHV

my squeezes and fragments, and it served to correct many of my readings. It will be given among other materials in the definitive treatise which I propose to publish on the Moabite Stone when I have time and the means.

Meanwhile, here is the photographic reproduction of the first copy which M. Bergheim handed to me open, the identity of which he can, necessary, certify.

The characters which represent lines 13, 14, and 15, are copied with exactness sufficient to permit one to recognise the Moabite letters.

The practised and adroit hand which traced them is perfectly capable of drawing those which cover the trans-Jordanic pottery.

More than this, the document shows us remarkable similarities in the pseudo-Moabite pottery, similarities of a *personal* character, which reveal the same individuality.

For instance, all the *mims* (*m*) in the monument of Mesha are invariably drawn in the same style, five zigzag strokes, the fifth of which has a long tail. Now Selim's copies, made from the original, show us the

*min* several times drawn in a variation of form essentially peculiar to Selim, and not existing *at all* in the original.

Very well, *this arbitrary form is found again* in the inscriptions of the Shapira Collection.

Unfortunately, I have not with me copies of the suspected inscriptions to multiply these instructive resemblances; but I am so convinced that others might be made, that I shall not hesitate to extract from Selim's two copies all the characters interpreted by him after his own fashion, and differing from the original. And I doubt not that we shall thus discover the origin of the characteristic variants, so extremely improbable, of the incriminated texts.

To sum up: neglecting all the proofs which I have collected in any preceding reports, setting aside the decisive conclusions drawn from the critical character of the inscriptions, we may henceforth consider it established about the man,—

1. That he has no scruples of conscience.
2. That he is artistically capable of executing such rude pottery as that of the Shapira Collection.
3. That he is familiar with the Moabite letters, having had occasion to copy a great number of them (250) from an original monument.
4. That on the pseudo-Moabite inscriptions is found one, and perhaps more than one, letter, in a curious form which does not exist on the monument of Mesha, but which does exist in Selim's own copies of this monument.

The idea of fabricating imitations of antiquity, and especially of important monuments, the discovery of which has produced a sensation in Europe, is an idea which naturally arises in the fertile brain of an Arab, always in search of some new method of turning to advantage Western curiosity.

The monument of Mesha has called forth a whole generation of Moabite pottery, which increases and multiplies in astonishing proportions. In the same way, a "find" that I had the good fortune to make, the stone from the Temple of Jerusalem, has suggested an analogous combination to persons engaged in this special industry. I join to this report the photograph of a false "Stone from the Temple," engraved on stone with a care and patience worthy of a better fate. I have the happiness of possessing this precious specimen of Jerusalem cunning. There is no necessity for me to point out the curious faults with which it is crowded. These are evident to every practised eye.

Here is a piece of work a good deal harder than the kneading of a little clay. It is a *tour de force* which, although it failed, seems at first more improbable than the exploits of Selim. It was, like Selim's work, executed by the same man whom I had employed about the original. This genius tried to sell the false stone to several amateurs in the city, and would perhaps have succeeded, if I had not, being warned by a squeeze sent to me at Constantinople, given the alarm at Jerusalem. It was a pity; for the potter, Selim, would have had in the

stone-cutters, Messrs. \*\*\*\* & Co., a redoubtable rival; and the mason's chisel would, perhaps, in the end, have triumphed over the potter's tool in a contest where European credulity was the stake.

The failure of this attempt depended on the forger's desire to make an inscription capable of translation, a point where all archæological forgeries fail. That is the reason why the Moabite pots, offspring of a prudent sire, are mute. They are entrenched in their character as incapable of translation for fear of crying their imposture aloud in opening their mouths.

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ΟΕΝΑΛΛΟΓΒΙΗΒΣΙΤΟ  
ΕΒΕΣΟΑΗΝΤΟΣΤΟΥΛΙΕ  
ΝΤΟΙΕΦΟΓΙΥΟΚΤΟΙΚΑ  
ΗΒΟΛΟΥΟΣΛΑΝΗ  
ΦΟΗΕΛΤΑΙΛΟΣΕΣ  
ΤΑΙΔΙ ΒΛΟΛΟ  
ΟΕΙΝΟΑΝΑΤΟΝ

---

The forger of the "Stone from the Temple" understood that, but too late. It is, perhaps, due to this change of sentiment that a great block, reputed to be from Siloam, has appeared. It is covered with Greek characters like that of the pretended "stone," but having no significance at all. The ruse succeeded, and the enigmatic inscription, having piqued the curiosity of a worthy and learned man, was bought by him. I could quote many examples of this kind, which throw a new light on the manufacture of "antiques," &c., for exportation which goes on at Jerusalem. Many a time since my first arrival here have I been offered copies of inscriptions notoriously false. Sometimes simplicity went so far as to ask specimens of the character which I should expect to find: a little more and I should be able to command my inscriptions.

Suffice it only to mention that I have only recently been offered, for ten francs, the very seal of "*David, servant of Jehovah*," engraved in hard stone in Hebrew-Phœnician letters, a little fantastic but quite legible. And some time ago I was offered a stone covered with characters newly cut, something between Hebrew and Himyaritic! I expect soon to have the tables of the Law and the yellow Phœnician book containing the correspondence of Hiram and Solomon.

C. CLERMONT-GANNEAU.

The following figures on the collection will be interesting. They have been furnished by the Rev. J. Niel:—

The first collection contains 911 pieces, of which 465 bear inscriptions.

The second collection contains 493 pieces, of which 60 only are inscribed.

The third collection contains 410 pieces, of which 68 are inscribed.

The proportion, therefore, of inscribed to uninscribed pieces drops suddenly from 50 per cent. to 12 per cent.

## THE STATUE OF HADRIAN PLACED IN THE TEMPLE OF JERUSALEM.

(*Reprinted from the "Athenæum" by kind permission of the proprietors.*)

JERUSALEM, Feb. 28, 1874.

A DONKEY-DRIVER of Jerusalem, who carries stones into the city for building purposes, picked up, some months ago, among the fallen blocks of a dry-stone wall, a marble head of natural size, which is probably an historical relic of great interest. I made him point out to me the exact position of his discovery. It is on the edge of the old Nablous road, thirty metres north of the Tombs of the Kings—that is, some minutes' walk from the Damascus Gate. The head, which now belongs to an effendi of the town, is that of a man. The beard is short and curly; the hair is abundant, with thick locks which cover a portion of the forehead. He bears a crown of laurels, the two branches of which are attached to a medallion, on which is engraved very distinctly in cameo an eagle, symbol of sovereign power.

The expression of the face from some points of view has a certain harshness; the eyes, the pupils of which are indicated by the sculptor, are looking upwards; the end of the nose is broken; and some portions of the face, especially the right eyebrow, have suffered. The whole back part of the head has been long since broken.

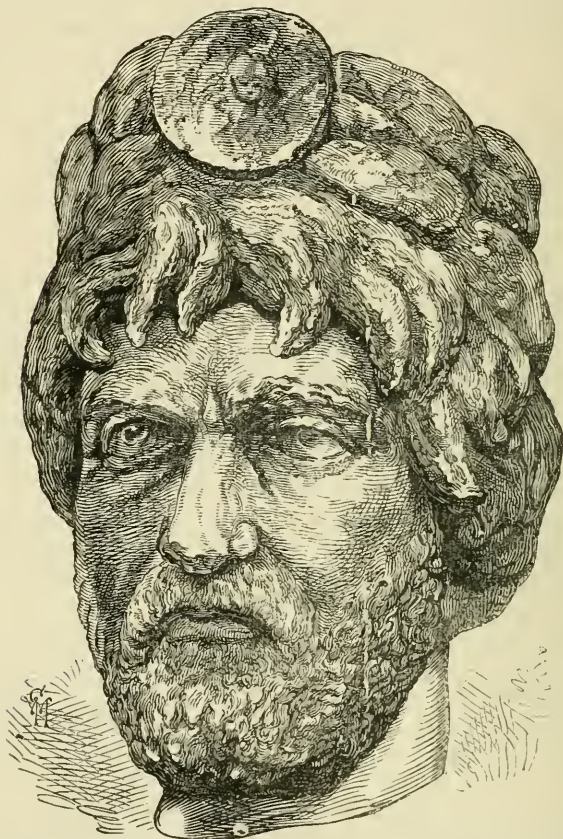
The style is entirely Roman; the workmanship is far from being faultless; but the effect of the whole is striking and imposing.

We have in this head clearly a portrait, and not a vulgar type. The mutilation of the nose, although slight, makes the identity of the personage at first difficult to distinguish. As I have not here the necessary works of reference to determine the question, I hesitated for some time between several hypotheses which presented themselves. I have now, after mature consideration, come back to my first impression, and I believe that we have in this head no other than that of the Emperor Hadrian. This is also the opinion of a man of great learning, the Archimandrite of the Russian Mission at Jerusalem. I think that this view will be admitted in Europe by *savants* competent to judge, and by all those who are in a position to submit it to a verification impossible here.

The finding of a head of Hadrian at Jerusalem is undeniably interesting; but were it not for certain peculiar circumstances which give it an historical value, it might be nothing but a mere curiosity.

Every one knows the last and terrible insurrection of the Jews, under the command of Barcochebas, "Son of the Star," which Hadrian had so

much trouble in subduing. After a victory dearly bought, which erased from the political world the name of Jew, Hadrian rebuilt Jerusalem and transformed it into a Roman colony, under the name of *Ælia Capitolina*. Among the numerous monuments with which he adorned the new city, Dion Cassius mentions a Temple of Jupiter Capitolinus,



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erected on the site of the ancient Jewish sanctuary. Some authors think that it was the projected erection of the pagan *naos* which was the determining cause, and not the consequence, of this last protestation of Jewish nationality so pitilessly suppressed.

In any case, there is no doubt that Hadrian placed *his own statue* in the Temple of Jupiter Capitolinus. In fact, the Bordeaux pilgrim observed, on the site of the Temple, *two statues of Hadrian*. St. Jerome,

who knew the place *de visu*, says expressly in his Commentary on Isaiah, "Where were formerly the Temple and the worship of God, are now placed the statue of Hadrian and the idol of Jupiter (Hadrian statua et Jovis idolum collocatum est)." It would also appear that the statue of the founder of Ælia Capitolina was an equestrian one, for the same writer, in his Commentary on St. Matthew, speaks of "the equestrian statue of Hadrian, which to this day stands upon the site of the Holy of Holies."

One may very well suppose that the pious but illiterate pilgrim of Bordeaux, in speaking of two statues of Hadrian, mistook for a second statue of the Emperor that which Jerome calls "the idol of Jupiter"—that is, the statue of the god to whom the Temple was dedicated. But two passages in Pausanias may be compared with the pilgrim's statement. He speaks in one place of a statue of Jupiter and that of Hadrian as forming a kind of group by themselves (I. iii. 5); and in another (I. xviii. 6), of two statues of Hadrian standing before the Temple of Jupiter Olympus. There may thus have been two statues at Jerusalem, one of them equestrian.

According to others, the two statues were those of Hadrian and his adopted son and successor Antoninus Pius. And if this theory be correct, we might have in the Latin inscription found in the Double Gate of the south wall the very dedication—"Imp: Cæs; Tito Ælio Hadriano Antonino Aug: p. p. pontifici anguri decreto decurionum"—engraved upon the pedestal of the latter statue.

In any case, there is no doubt that on the site of the Temple stood at least one statue of Hadrian, probably on horseback. The military nature of the events immediately preceding the foundation of the new Roman colony explain the use of an equestrian statue representing the Emperor as a victorious warrior.

Down to the end of the fourth century, the statue was intact; but it is evident, admitting even that the *prestige* of the imperial name was able to protect it from the hands of the Christians, that it could not escape the Vandalism of the Persians, and the vengeance of the Jews, their allies. And, at all events, it disappeared inevitably on the arrival of Omar with his Arabs; its fragments, which defiled the sacred rock, were probably carried away from the purified sanctuary and thrown out of the city with the filth and rubbish which Omar cleared away.

Strange irony of fate! Thrown face downwards on the old highway, this triumphant head of the conqueror of Barcochebas, the re-builder of Jerusalem, the Divine Hadrian, with the laurel leaf and the eagle of empire, has been trodden under foot for twelve centuries by everybody, great and small, who has entered the Holy City. And after this long ignominy, for a last outrage, the mutilated head, still with the same pride in his look, has been picked up by a poor peasant and thrown among his common building stones. If Jehovah had still His prophets, some new Isaiah would not fail to show in this sad fate an expiation

due, the chastisement of a jealous God avenging the profanation of His House.

C. CLERMONT-GANNEAU.

The above was in the hands of the Committee of the Palestine Exploration Fund for some time, but was withheld from publication in the hopes that M. Ganneau would acquire the head. In this he has been disappointed, the Archimandrite having bought it for a larger sum than M. Ganneau was authorised to offer. Drawings and photographs by M. Lecomte were sent to England with the memoir, and are now in the office of the Fund. Mr. Vaux writes on the subject:—"I have great pleasure in confirming M. Ganneau's judgment so far as I can, from the only available document before me, at present—his photograph. The characteristics of Hadrian's physiognomy are the crisp beard, the straight nose, the curved eyelids, and the curved if not curled, moustachios, &c. All these are here. The work appears to be rough, and the material coarse, but I have no doubt that the head is that of Hadrian, in spite of some doubtful points."

## ON THE METEOROLOGY OF VARIOUS PLACES IN PALESTINE,

AT WHICH OBSERVATIONS WERE TAKEN BY THE ROYAL ENGINEERS.  
BY JAMES GLAISHER, ESQ., F.R.S., ETC.

THE observations on which this paper is based were recorded by the survey party under the command of Lieutenant Claude R. Conder, R.E., and were taken at various places spread over the area comprised between latitudes 31 deg. 56 min. and 32 deg. 49 min. north, and longitude 34 deg. 50 min. and 35 deg. 15 min. east. The periods of time at the different stations during which observations were registered were very varying in length, and therefore the results given below can only be regarded as approximate; thus, at Caiffa the approximate mean temperature is deduced from 79 days' observations, but at Shayk Abrayk from 15 days' only. The local times of observation were 7 or 7.30 a.m., 9 a.m., and 3 p.m.

In the accompanying table the name of the station, with its latitude and longitude, and height above sea-level, is given with the length of the period of observation. These are followed by columns giving respectively the highest and lowest barometer readings and the mean value for the period, all reduced to 32 deg. Fahrenheit, but not to sea-level. Then follows the absolute maximum and minimum temperatures of the air, with the range in the period; the means of the maxima and minima and the mean daily range. Next in succession are the mean

values of dry and wet bulb thermometers and the hygrometrical deductions therefrom.

The *approximate mean temperature* is deduced from the means of all the maxima and minima temperatures uncorrected. The mean readings of a solar radiation thermometer are given for some of the stations, but at Jenin Lieutenant Conder remarks: "The maximum thermometer in rays of sun was broken on 13th September, the bulb being then open to the air. It was mended with sealing-wax covered with lime, the thermometer being immersed for some time (reversed) in boiling water to obtain the nearest possible approach to a vacuum. It has, however, read considerably lower since the 18th when mended, though not so low as whilst remaining broken." Readings after the 13th September are therefore of little value. The minimum radiation values are also wanting from 1872, June 6, to 1873, Feb. 10, the thermometer having been broken. The remaining columns are occupied by the average strength of the wind, the number of days in which it blew from different points and on which the air was calm, the mean amount of cloud, the number of days on which rain fell, and the amount collected.

I hope in future *Quarterly* journals to give papers on the results of longer-continued series of observations at Nazareth, Jaffa, and Gaza.

*Yazûr*, 1872, April 4 to 23.—During the whole period the weather was fine, though occasionally somewhat cloudy. Showers of rain fell on the 10th, 15th, and 16th. The air was generally calm. The readings of the barometer decreased from about 30·0 in. on the 5th to 29·7 in. on the 14th, increased to 30·0 in. again by the 19th, and was 29·7 in. at the end of the period. The highest reading of a thermometer in the sun's rays was 148·7 deg. on the 8th, and the lowest on the grass at night, 36·1 deg. on the 11th.

*Khîrbetha ibn Harith*, April 25 to May 10.—Rain fell heavily between 7 and 9 a.m. on May 3rd, and again on the 4th, but with these exceptions the period was rainless. Light clouds were generally present except on the above-mentioned days, when they were much denser and larger in amount. A fall in the barometric column was registered previous to the rainy days, reaching its minimum, about 28·5 in., on the 2nd, but by the 6th had increased to 28·8 in. The wind blew briskly from the south-west on the 3rd and 4th, the directions on the remaining days being variable. The maximum radiation thermometer registered 157·7 deg. on the 1st May, and the minimum 46·0 deg. on the 29th April.

*Ain Sinia*, May 11 to 30.—The weather throughout was generally fine, and with the exception of a slight shower on the 22nd no rain fell. Thunder was heard, but lightning was not seen, on the 22nd and 24th. Southerly winds were prevalent from the 11th to the 18th, but with light pressures; during the same time the sky was generally cloudy. On the 29th, observations were taken at 3 p.m., local time, the results being:—Barometer, 27·7 in.; and dry and wet bulb thermometers, 92·9 deg. and 67·1 deg. respectively. The maximum reading in the sun's rays was 158·7 deg. on the 22nd, and the lowest on the grass, 42·5 deg. on the 16th.

*Kuzah*, May 31 to June 17.—At this station the barometric changes were very small, the absolute range of reading amounting to but 0.2 in. In the early morning the air was usually calm, but fresh breezes sprung up in the afternoon. The weather was very fine and rainless throughout. Highest reading in sun's rays, 168.5 deg.

*Nablus*, June 18 to August 16.—The camp at Nablus was not very well situated for ascertaining the direction of the wind accurately, the results therefore are only approximate. The sky was very free from cloud, but fog was prevalent on the morning of the 22nd of July. Very small barometric changes were recorded. The pressure of the wind was light but very continuous. The highest reading in the sun's rays was 180.5 deg. on the 12th July.

*Jeba*, August 17 to 30.—Several oscillations of the barometer were recorded, the principal being an increase to 28.7 in. on the 19th, a decrease to 28.5 in. on the 21st, an increase to 28.8 in. by the next morning, followed by a decrease to 28.5 in. by the afternoon of the 23rd, and an increase to 28.8 in. again in the early morning of the 24th; this again being followed by a decrease to 28.5 in. by the afternoon of the 25th. Tolerably brisk westerly winds were prevalent, and light clouds generally present in the early portion of each day. The highest reading in the sun's rays was 173.5 deg. on the 17th. No rain fell.

*Jenin*, August 31 to September 28.—In the whole period the range in barometric readings amounted to but 0.2 in. The weather was somewhat variable at times, the sky being very cloudy, but no rain fell. Strong breezes were occasionally experienced, but the direction of the wind was changeable.

*Umm el Fahm*, September 29 to October 19.—Barometric changes inconsiderable. The air throughout was generally calm. A shower of rain fell on the evening of the 3rd October. Lightning, not accompanied by thunder, seen on the same and following evenings, and thunder (without lightning) was heard on the 7th, also accompanied by a slight shower. The amount of rain measured was only 0.002 in.

*Mujaydel*, October 20 to November 8.—The weather very variable throughout. Thunderstorms were experienced on the 21st, 22nd, 23rd, and 24th, with at times heavy rain, and on the 20th hail in a very small quantity. The Sirocco blew on the 26th October and 2nd November.

*Nazareth*, November 9 to 26.—From the 9th to the 13th showery weather with thunderstorms was prevalent, followed by a fine period till the 26th. An increase in the barometric readings was recorded till the 21st, when 29.0 in. was reached; a decrease till the end of the period then occurred. Easterly and north-easterly winds were prevalent from the 19th onwards, with light pressures.

*Shaykh Abruqk*, November 27 to December 11.—A shower of meteors was observed throughout the night of the 27th. The sky was generally cloudless till the 9th December; on the 10th it was showery all day. A thunderstorm occurred during the night of the 9th. The air was calm throughout.

*Cuiffa*, December 12, 1872, to February 26, 1874.—The principal barometric changes were:—

	In.		In.
An increase to	30.1 on the 17th Dec.	A decrease to	29.9 on the 15th Dec.
"	30.1 " 27th "	"	29.5 " 20th "
"	30.3 " 2nd Jan.	"	29.9 " 29th "
"	30.2 " 10th "	"	29.9 " 7th Jan.
"	30.3 " 16th "	"	30.1 " 12th "
"	30.1 " 22nd "	"	29.9 " 19th "
"	30.0 " 1st Feb.	"	29.7 " 30th "
"	30.2 " 5th "	"	29.8 " 3rd Feb.
"	30.2 " 9th "	"	29.9 " 7th "
"	29.9 " 13th "	"	29.8 " 12th "
"	30.3 " 23rd "	"	29.8 " 17th "

From the 12th to the 14th December the weather was very fine; from the 15th to the 28th showers of rain fell, accompanied by a thunderstorm on the night of the 24th. Another period of fine rainless weather occurred from the 29th to the 11th January, followed by a few unsettled days, and then again very fine till the end of January. A thunderstorm prevailed during the night of the 12th. During February it was very variable; rain fell frequently, accompanied at times by thunder and lightning, and by hailshowers on the 17th and 19th. The afternoon of the 14th was foggy, but on the following day the sirocco was experienced. During the latter part of the period it was very squally.

*Jeba, near Athlit*, February 27 to March 21.—The barometer readings decreased from 29.9 in. on the 9th to 29.4 in. on the 13th, then increased again to 29.9 in. by the 20th. The period was generally fine, though rain fell occasionally. Thunderstorms were prevalent on the 16th and 18th.

*Kannir*, March 22 to April 8.—Several oscillations of the barometer were experienced during the latter portion of March, accompanied by gales and heavy showers. A thunderstorm occurred on the 25th. The remainder of the period was fine, broken, however, by one stormy afternoon, viz., that of the 5th April.

*Zayta*, April 9 to 25.—A somewhat unsettled period prevailed from the 14th to the 17th, with thunderstorms, but otherwise it was very fine throughout.

*Makhalid*, April 26th to May 7; *Kefr Zebad*, May 8 to 23.—Very fine generally. The 9th and 23rd were squally, with sirocco, and on the 17th and 18th thunder unaccompanied by lightning was heard.

NAME OF STATION.	Height above Sea.	Period of Observation, 1871.	BAROMETER.				TEMPERATURE OF AIR IN PERIOD.						MEANS.						MEAN READING OF THERMOMETER.		WIND.				RAIN.		
			Highest.	Lowest.	Range.	Mean reduced to 32° Fahr.	Highest.	Lowest.	Range.	Mean.			Dry.	Wet.	Dynamometrical Deductions.		Approximate Mean Temperature from Max. and Min.	Maximum in Shade of Sun.	Minimum on Grass.	Estimated Strength.	Relative Proportion of at 7 a.m.				Mean Amount of Cloud.	Number of Days it fell.	Amount Collected.
										Highest.	Lowest.	Daily Range.			Dew-point.	Elastic Force of Vapour.					Degree of Saturation—100.	N.	E.	S.			
Yagur. Lat. 32° 1' N. Lon. 34° 50' E.	68	April 3 to April 23	29.980	29.707	0.273	29.843	deg.	deg.	deg.	deg.	deg.	hour.	deg.	deg.	deg.	in.	deg.	deg.	deg.	deg.	0 1 3 3 13	2.6	3	0.36			
Khilbatha ibn Harith. Lat. 31° 56' N. Lon. 35° 4' E.	1250	April 25 to May 10	28.841	28.532	0.309	28.637	87.1	51.0	36.1	75.6	55.2	20.4	7 a.m.	62.7	56.8	51.8	.386	68	65.4	50.6	0.8	1 6 4 3 2.5	2	1.15			
Ain Sinia. Lat. 31° 58' N. Lon. 35° 14' E.	2060	May 11 to May 30	27.911	27.686	0.225	27.827	95.7	45.0	50.7	79.7	53.8	25.9	7 a.m.	64.7	58.2	52.8	.400	65	66.8	48.1	1.0	2 3 6 3 6	2.2	0	0.00		
Kuyah. Lat. 32° 9' N. Lon. 35° 15' E.	1640	May 31 to June 17	28.400	28.200	0.200	28.296	100.9	53.8	47.1	88.0	61.1	26.9	5 a.m.	66.9	58.2	51.2	.377	58	74.6	154.0	..	..	1.3	0	0.00		
Kabus. Lat. 32° 13' N. Lon. 35° 13' E.	1950	June 17 to Aug. 16.	27.973	27.741	0.232	27.848	94.1	50.0	38.1	84.8	64.1	20.7	7 a.m.	70.3	64.9	60.7	.534	71	74.5	170.8	..	1.1	6.11	21.9	3.14	0	0.03

NOTE.—Barometer reading Oct. 3rd, 9 a.m., 29.961 in. altered to 28.961 in.

NAME OF STATION.	Height above Sea.	Period of Observation, 1872	BAROMETER.					TEMPERATURE OF AIR IN PERIOD.					MEANS.										MEAN READING OF THERMOMETER.		WIND.				RAIN.								
			Highest.	Lowest.	Range.	Mean reduced to 32° Fahr.	Highest.	Lowest.	Range.	Of all Highest.	Of all Lowest.	Mean.	Daily Range.	Local Times of Observation.	Dry.	Wet.	Dew-point.	Elastic Force of Vapour.	Bore of Humidity.	Saturation—100	Approximate Mean Temp. and Mm.	Maximum in Days of Sun.	Minimum on Grass.	Estimated Strength.	N.	E.	S.	W.	Value.	Relative Proportion at 9 a.m.	Mean Amount of Cloud.	Number of Days it fell.	Amount collected.				
Jeha. Lat. 22° 20' N. Lon. 35° 14' E.	1200 feet.	Aug. 17 to Aug. 30	28·824	28·421	0·353	28·571	90·0	63·2	26·8	86·8	68·0	15·8	7 a.m. 9 a.m. 3 p.m.	71·4 77·2 83·5	68·8 69·9 71·9	64·8 64·8 64·2	558 614 601	85 66 52			deg.	deg.	in.	deg.	deg.	in.	deg.	deg.	..	1·2	0	0·00					
Jedih. Lat. 22° 27' N. Lon. 35° 18' E.	640	Aug. 31 to Sept. 23	29·411	29·215	0·196	29·301	102·7	65·5	37·2	92·5	69·8	22·7	7 a.m. 9 a.m. 3 p.m.	75·8 81·5 90·2	71·3 72·6 73·9	68·0 66·6 62·3	688 653 560	77 61 40			deg.	deg.	in.	deg.	deg.	in.	deg.	deg.	..	1·4	1	6·13	8	1·9	0	0·00	
I mm-el-Fahm. Lat. 32° 31' N. Lon. 35° 5' E.	1260	Sept. 20 to Oct. 19	28·890	28·671	0·219	28·865	101·4	58·6	42·8	84·9	64·2	20·7	7 a.m. 9 a.m. 3 p.m.	68·9 76·9 80·7	64·0 65·6 65·7	60·1 57·7 55·7	520 477 439	73 51 42			deg.	deg.	in.	deg.	deg.	in.	deg.	deg.	..	0·5	4	2	2	1·12	1·9	0	0·00
Majayded. Lat. 32° 41' N. Lon. 35° 14' E.	770	Oct. 20 to Nov. 8	29·527	29·318	0·209	29·416	93·9	56·3	39·6	82·5	61·6	20·9	7·30 a.m. 9 a.m. 3 p.m.	67·0 72·5 75·3	61·2 65·3 66·9	56·5 59·9 60·9	459 518 535	69 64 61			deg.	deg.	in.	deg.	deg.	in.	deg.	deg.	..	0·7	1	2	2	1·14	4·7	4	1·41
Nazareth. Lat. 32° 42' N. Lon. 35° 16' E.	1330	Nov. 9 to Nov. 23	29·018	28·675	0·343	28·818	76·2	57·3	18·9	70·4	60·1	10·3	7·30 a.m. 9 a.m. 3 p.m.	61·0 64·2 69·9	55·0 57·4 58·0	49·8 47·4 48·9	358 326 346	67 54 47			deg.	deg.	in.	deg.	deg.	in.	deg.	deg.	..	1·2	3	7	1	2	2·3	4	2·19
Shaykh Al-mayk. Lat. 32° 42' N. Lon. 35° 7' E.	530	Nov. 27 to Dec. 11	29·659	29·354	0·305	29·472	75·6	43·8	31·8	72·7	47·4	25·3	7·30 a.m. 9 a.m. 3 p.m.	59·9 58·4 69·4	47·3 47·4 50·0	43·5 328 327	384 328 308	76 67 55			deg.	deg.	in.	deg.	deg.	in.	deg.	deg.	..	0·0	0	0	0	0·15	1·9	2	0·33

NAME OF STATION.	Height above Sea.	Period of Observation, 1873-4	BAROMETER.				TEMPERATURE OF AIR IN PERIOD.						MEANS.				MEAN READING OF THERMOMETER.		WIND.				RAIN.							
			Highest.	Lowest.	Range.	Mean.	Highest.	Lowest.	Range.	Of All.	Of All.	Daily Range.	Dry.	Wet.	Dew-point.	Elastic Force of Vapour.	Degree of Humidity.	Approximate Mean Tem- perature from Max. and Min.	Maximum in Days of Sun.	Minimum on Mistress.	Estimated Strength.	N.	E.	S.	W.	Calm.	Mean amount of Cloud.	Number of Days it fell.	Amount Collected.	
Gaira. Lat. 32° 09' N. Lon. 34 30' E.	50	Dec. 12 to 1878. Feb. 26	30.321	29.460	0.862	30.002	29.002	1.000	83.2	41.3	41.9	41.0	42.4	9 a.m.	56.3	51.0	46.1	31.3	57.0	...	1.7	4.28	29	4	3	3.9	28	6.67		
			29.988	29.468	0.520	29.802	29.002	0.800	82.9	49.8	33.1	68.6	52.1	3.00	58.2	55.9	52.1	38.0	61.0	53.0	1.3	1	4	9	4	5	4.0	9	3.34	
Juba near Alhiti Lat. 32° 32' N. Lon. 35 1 E.	345	Feb. 27 to Mar. 21	29.855	29.366	0.489	29.782	29.002	0.780	88.0	39.2	48.8	73.6	49.5	24.1	7.30 a.m.	61.0	56.9	53.3	43.6	61.5	46.4	1.6	1	6	4	6	1.5	8	7	0.73
			29.762	29.435	0.327	29.712	29.002	0.710	90.1	47.6	51.5	83.0	55.3	27.7	7.30 a.m.	66.0	59.3	53.8	41.1	69.1	51.5	0.9	1	7	4	3	2	3.3	1	0.36
Zayta. Lat. 32° 23' N. Lon. 35 9 E.	340	April 9 to April 25	30.055	29.612	0.443	29.880	29.002	0.878	93.7	41.1	49.6	82.2	55.8	26.4	7.30 a.m.	68.1	62.5	58.1	48.5	69.0	52.8	1.2	3	2	1	3	3	4.0	1	0.01
			29.114	28.876	0.238	28.952	28.002	0.950	94.9	56.2	58.7	84.7	63.7	21.0	9 a.m.	70.2	63.6	57.6	47.6	74.2	60.6	0.9	1	1	2	10	3.1	1	0.24	
Kafir Zebad. Lat. 32° 13' N. Lon. 35 4 E.	880	May 8 to May 23	29.114	28.876	0.238	28.952	28.002	0.950	94.9	56.2	58.7	84.7	63.7	21.0	9 a.m.	70.2	63.6	57.6	47.6	74.2	60.6	0.9	1	1	2	10	3.1	1	0.24	

THE  
PALESTINE EXPLORATION FUND.

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PREFACE.

THE most important events in the work of the last three months are the discoveries on the site of Gezer by M. Clermont-Ganneau, and that of the Altar of Ed by Lieutenant Conder. The former is only equalled in interest by M. Ganneau's previous discovery in Jerusalem of the stone of Herod's Temple. He has found, on a spot previously indicated by him as the site of Gezer, viz., Abu Shushah, which lies five miles south-east of Ramleh and four east of Amwas (the presumed Emmaus), not only the name Tell el Gezer, still existing, with traces of the foundations of houses, but two inscriptions, both exactly alike, in Hebrew and Greek, the Hebrew words being translated "the boundary of Gezer." We have thus new data for many important points of dispute. There are, for instance, the boundaries of a Levitical city (Numbers xxxv. 4, 5); the direction of the square, which is now seen to have lain with its four angles at the four cardinal points; the exact length of "two thousand cubits," and therefore of one cubit. The measurements, however, are not yet completed. The inscriptions will be engraved when these, with the memoir promised by M. Ganneau, are sent home. The other discovery, that of the Altar of Ed, is hardly less interesting; and the survival through so many ages of the name is only another proof of the vitality of the old names in the Holy Land.

The *Quarterly Statement* contains besides these two papers, a report of the Annual Meeting, at which, among other speakers, the Rev. Dr. Porter, just returned from Palestine, gave an account of his recent journey; and the Rev. Dr. S. Manning, also a recent traveller, spoke on the necessity, for the right understanding of the Bible, of scientific exploration. We have also two valuable reports from M. Clermont-Ganneau, and a paper by Lieutenant Conder read at the British Association at Belfast.

The thanks of the Committee are specially due to the Cloth-workers' Company, to the Syrian Improvement Committee, to the British Association, to Mr. Henry Lee, to Mr. W. Vaux, and to "G. M. E.," for donations during the present year of £100 each to the Fund. Financially, the Fund is not prosperous, in spite of these generous donations. The Committee are deeply in debt. They asked the Annual Meeting for £2,500 before the end of the year. Since that time (June 23rd) about £640 have been received at the office. It is earnestly urged upon all subscribers who have not paid for the current year to do so without delay, and upon all Honorary Local Secretaries to circulate a knowledge of the Fund and its claims as widely as possible.

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## NOTES.

The following resolution was passed at the Meeting of the British Association at Belfast :—

That Major Wilson and Mr. Ravenstein be appointed a committee for the purpose of furthering the Palestine Explorations, and that the sum of £100 be placed at their disposal to be expended on behalf of the Topographical Survey, and especially in ascertaining the level of the Sea of Galilee and the fall of the River Jordan.

The Syria Improvement Committee have decided on terminating their trust. Out of the funds remaining in their hands they voted £100 for the Survey of Palestine.

M. Clermont-Ganneau's leave of absence expires on October 23rd. It is hoped that his services may be continued for another year.

It has been resolved that an application shall be made to the War Office for a second officer of Royal Engineers to join the Survey party under command of Lieutenant Conder in place of Mr. Tyrwhitt Drake.

The hill sketching and all the plans and special surveys made by Lieutenant Conder have been deposited for safety with the Union Bank, where they will remain until the completion of the Survey. It was judged expedient not to run the risk of losing any of these invaluable documents by fire or otherwise.

The Duke of Westminster, who very kindly lent Grosvenor House for a meeting in July, has joined the General Committee.

The total amount received from all sources since the last *Statement* was £650 7s. 7d. (June 26 to Sept. 30). The balance on the same date was £165 15s. 1d. The expenditure during the next three months will be about £1,000, and it will be necessary besides to pay at least £600 of our liabilities.

A letter has been sent to all the City companies and various societies, asking for assistance in the great work of the Survey. The fact is stated publicly, in the hope that subscribers will be able to help this appeal by their own influence. Perhaps, also, a general appeal will be made in November.

The following Special Meetings have been held during the summer :—

1. Grosvenor House, July 24th, 1874. The chair was taken by Mr. MacGregor, and the meeting was addressed by the Chairman, by Captain Warren, and Lieutenant Conder. The room was very kindly lent by the Duke of Westminster.

2. Admiral and Lady H. B. Hamilton, July 18, 1874. Captain Warren spoke on the work of the Fund.

3. Sept. 30, at the Palace, Chichester, when Mrs. Finn, through whose exertions all the summer meetings were arranged, gave an account from her own experience of recent and early research in the Holy Land.

4. Drawing-room Meetings were also held at the houses of Madame de Bunsen, Mrs. Osborne, and Mrs. Ellis.

At these meetings the following ladies entered their names as members of the Ladies' Association :—

Lady H. B. Hamilton,	Macartney House,	Greenwich.
Miss Hamilton,	„	„
Miss Jones,	16, Park Row,	Blackheath.
Miss E. Jones,	„	„
Miss Jackson,	„	„
Miss Pontifex,	Crown Hill,	Blackheath.
Mrs. Francis B. Wire,	„	„
Mrs. H. Lacon,	7, Hyde Park Street,	W.
Miss Turbervill,	170, St. Paul's Road,	Highbury
Miss Kims,	24, Highbury New Park,	N.

- Mrs. Stanley, 9, Lancaster Gate, W.  
Mrs. J. Gritton, Tinnevelly Lodge, St. Peter's Park, W.  
Mrs. S. Hanson, 24, Greville Place, Kilburn.  
Miss Hanson, The Vicarage, Christchurch, Hants.  
Mrs. Ellis, 197, Maida Vale.  
Mrs. Despard, Parsonage, Kilburn.  
Mrs. Sydall, 60, Ladbroke Grove, W.  
Mrs. Holdsworth, per H. Gough, Esq., Waltham Abbey, Essex.  
Mrs. Osborne, 5, Ulster Terrace, Regent's Park.  
Mrs. Halley, 16, Hanley Street, W.  
Mrs. J. C. Chappell, 14, George Street, Hanover Square, W.  
Mrs. Hunter, 32, Charlotte Street, Edinburgh.  
Miss Colls, Florence Villa, King Henry's Road.  
Miss Rogers, 150, Alexandra Road, St. John's Wood.  
Mrs. C. H. Osborne, 120, Cornwall Road, S.W.  
Mrs. G. H. Osborne, 5, Ulster Terrace, Regent's Park, N.W.
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## ANNUAL GENERAL MEETING OF THE PALESTINE EXPLORATION FUND.

HELD AT THE ROYAL INSTITUTION, 23RD JUNE, 1874.

THE VERY REVEREND THE DEAN OF WESTMINSTER IN THE CHAIR.

The CHAIRMAN: I shall call upon Mr. Grove to read the Report.

GEORGE GROVE, Esq., Hon. Sec., read the Report as follows:—

“The Committee are happy in being able to report that the work of the year has been marked by an unparalleled progress.

“Two branches of work have been simultaneously carried on. The survey of Western Palestine, under Lieut. Conder and Mr. Tyrwhitt Drake, and the Archæological researches of M. Clermont-Ganneau. Lieut. Conder will himself describe to you the method of the survey.

“At the last annual meeting of the Fund, the Committee were able to report the completion of 1,600 square miles in the eighteen months which had elapsed since the commencement of the survey.

“During the past twelve months the rate of progress has greatly increased.

“The number of square miles now mapped and surveyed is over 3,000, or about one-half of Western Palestine.

“Map-making is only part of the work of the expedition; careful drawings, with plans, measurements, and sketches of every ruin and important site, are made; the ancient roads, aqueducts, and lines of communication are traced; observations on the geology and natural history of the country are recorded, and specimens collected; and the traditions of the people are sought for and carefully noted down.

“Foremost among the special surveys may be mentioned those of Athlît, Dor, Beisan, Cæsarea, and Antipatris. There are also plans of two ruined cities not yet fully identified, discovered by Lieut. Conder; a group of early Christian convents, and some fine tombs which throw much light upon the history of the architecture of various periods in Palestine. The tomb and summer palace of Herod at Jebel Furaydis have been examined. A survey and plan have been made of Môdin, where are the tombs of the Maccabees. The system of caves, commonly known as the cave of Adullam, has been thoroughly explored. The Jordan Valley has been surveyed, where the site of Gilgal has been fixed with great probability.

“With regard to the identification of other sites, that of Enon (proposed by Dr. Robinson) has been verified. The places mentioned (Judges vi., vii., and viii.) in Gideon’s pursuit after the Midianites can now be followed on the map; and Lieut. Conder believes that he had identified the rock Oreb and winepress of Zeeb (Judges vii. 25).

“It is probable, also, that the voluminous geological notes made in the

valley of the Jordan will help to settle the difficult question of the date, and method of formation, of this valley, and the Dead Sea.

"It is impossible to publish in the *Quarterly Statements* all the sketches and plans now in the possession of the Committee and accumulating monthly. These will appear in the work which the Committee *hope* to be able to publish in connection with the map, when the survey is completed.

"The non-commissioned officers, Sergeant Black, Corporal Armstrong, and Lance-Corporal Brophy, have worked throughout to the entire satisfaction of Lieut. Conder, and the Committee desire to express their high sense of the value of the service which they have rendered to the Fund.

"With regard to the survey, it should be added that the work has been conducted in the face of the most severe winter ever known in Palestine, and in spite of fever, which attacked both Lieut. Conder and Mr. Tyrwhitt Drake.

"Turning to the work of M. Clermont-Ganneau, the Committee point to his letters published in the *Quarterly Statements*.

"He has discovered the ancient cemetery of Jaffa, found apparent traces of the primitive houses of Gezer, examined the site, suggested by himself, of the stone of Bohan, and made researches attended with results of great interest at Gumran (the Gomorrah of De Sauley), Jericho, the Wady Kelt, Shafât, Modin, and many other places. He has brought to light numerous inscriptions, discovered and examined many ancient tombs, and collected a great number of local traditions. He is now engaged in exploring a series of rock-cut chambers north of the Via Dolorosa, in Jerusalem, which seem to have an important bearing on the topography of the city.

"The reports of M. Ganneau have been accompanied by a series of most carefully executed drawings by M. le Comte. The Committee take this opportunity of drawing attention to the energetic and able manner in which M. Ganneau is carrying out their instructions.

"The income of the Fund for the year 1873 amounted to £3,630 17s. 3d., the largest income it has ever obtained since the year 1869. The amount received this year up to the present date is £1,758 17s. 9d., being £308 more than was received up to the same date of last year.

"On the other hand, the expenses are heavier, both in Palestine, owing to the two expeditions, and at home, owing to the enlargement of the Reports and the increased expenses in printing. Even to pay their way, without paying existing debts, the Committee will have to ask for at least £2,500 before the end of the year.

"Intelligence has been received from the secretary of the American Exploration Association that the sum of 60,000 dols., or £12,000, has been raised by appeal, and that a second expedition will be sent out without delay to the east of the Jordan.

"This proof of enthusiasm in America will be heartily welcomed in England, and ought to be a stimulus for the raising of a larger sum for our own Society.

“An Association has been formed in Germany for the scientific exploration of Phœnicia. The Committee will endeavour to place themselves in communication with this society with a view to the interchange of papers.

“The Committee have, lastly, the pleasing duty of expressing their sincere thanks: 1st, to Mr. Consul Moore, of Jerusalem, for the friendly help he has always rendered to Lieut. Conder and M. Ganneau; 2ndly, to Dr. Chaplin, who has continued for Lieut. Conder's party the same gratuitous medical assistance which he so kindly gave to Major Wilson's and Capt. Warren's expeditions, and whose valuable services in many other ways have always been placed so readily in the hands of the Fund; and 3rdly, to Mr. Schick, for the notes of his researches at Jerusalem, which he forwards from time to time to Major Wilson for the Fund.

“They have also to thank Lord Shaftesbury for the sympathy which prompted him to write to the *Times* last autumn a strong appeal on behalf of the Fund; the Rev. Dr. Aberigh Mackay, of Simla, who has raised a subscription in India; and all local secretaries, for the trouble they take in maintaining interest in the work, and raising money for its continuance.”

Lieut. CONDER then read the following Report of the proceedings of the Society in Palestine:—

It is now two years since I was honoured by having the command of the Survey Party in Palestine entrusted to my care, and I am glad to be able to report to-day that the work has been prosecuted during that time without any material check, and with many interesting and important results, with which you are already familiar.

Before leaving Palestine I had completed, roughly speaking, half the map. On my arrival in the country I found that the time required was estimated at eight or ten years, but now we are able to promise, that unless the health of the party fails, we shall have all Palestine, from Dan to Beersheba, surveyed and thoroughly examined within some eighteen months from this time,—in four years, instead of eight as originally contemplated. Hitherto the men have hardly had a day's illness; and I think we may hope that with due care and the invaluable advice of Dr. Chaplin, the open-air life may continue to enable them to stand the effects of the climate and of the work.

There is nothing which is so striking on returning to England as the difficulty of conveying a truthful and vivid impression of Palestine, and the life we lead there. It must be borne in mind that every inch of paper on the sheets brought home represents a square mile of difficult country ridden over more than once, and every small plan a large ruin encumbered with fallen stones, or overrun with thistles through which the chain has to be dragged.

The method of proceeding has now become stereotyped; it is a constant repetition every fortnight or ten days of the same round of duties, only broken by the winter rainy season. In a month we now add nearly 300 square miles to the map, being five times the rate first

obtained; and were it not impossible for even the endurance of my non-commissioned officers to stand the strain, the actual amount of time required to complete the map would not be more than some twelve months.

The expedition as at present constituted consists of five Europeans and ten Syrians, including servants, groom, cook, and muleteers, with an irregular horseman supplied by the local government. For our transport we require eight horses and seven mules, and on the days of moving camp five or six camels in addition. Thus, on the occasion of our first march along the Jordan valley high road our caravan extended over a quarter of a mile: in front the horsemen, followed by the heavily-loaded mules with bells and gaily ornamented harness; behind these the camels, and in rear the Bedouin guards on their horses and the Sheikh on his dromedary, whilst a string of Arabs on foot with long guns, and of servants mounted on donkeys and mules, mingled with the main line of the march.

Arrived at our destination, the first thing necessary is to choose a camping ground in a convenient position, sheltered, near to water, and on as even ground as possible. If at a village it is next necessary to send a message to the leading man of the place. For this purpose our head servant, in the full glory of Syrian costume, well armed, and mounted on a good horse, is despatched with the Imperial firmán to explain the object of our arrival, and demand all necessary assistance. The presence of a government soldier, and the fact that our arrival has probably been already announced, as it is known at one camp where our next is to be, makes this generally a mere formality. The elders of the village immediately come down, and we are offered coffee and other refreshments. After this, with the exception of extortionate demands, which dwindle to fair prices in the course of a few days, we have as a rule but little trouble with the inhabitants of this village or of those in the immediate neighbourhood.

A consultation with my sergeant and orders to the head servant follow, and thus next morning we are all ready to begin the work.

As night comes over the camp the active duties of our dogs commence. The English fox-terriers, of a breed which we preserve very carefully, run round the tents, and are constantly on the alert for jackals, hyænas, or prowling Arabs. Sometimes we are waked by the noise of a combat, when they have seized some large prey, and require our assistance. More than once they have saved our horses by discovering the approach of thieves. Thus, at Shunem, Sergeant Black and I were waked by a dog's bark, and discovered that three Bedouins had crept through the long grass within a few feet of the picket of valuable horses. We rose and loaded our guns, but although some twenty Arabs descended on the neighbouring village, and a skirmish with the villagers ensued, we were not attacked. A dropping fire was kept up for some time on both sides, and the war cry of the Arabs answered the shouts of the fellahin; but having stolen a horse and a cow the robbers retired for the night.

By about half-past seven in the morning the horses are saddled, the breakfast ready, and two mules packed. On the back of each is a square wooden canvas-covered box, containing the theodolite, placed well forwards to allow a native to sit; behind it on each side are saddle-bags with provisions, an umbrella, the legs of the theodolite, a bucket of whitewash, a hatchet, &c. Each party, accompanied by a guide from the village on another mule, now moves off to a high mountain top, already well known, and chosen from a former camp. For two or three hours we go steadily on our way, now by a path, now across country up the narrow valleys and over stony ridges, keeping our point straight before us. There is generally very little said unless a consultation becomes necessary; and our acquaintance with the country is now so good, that we rarely meet any obstacle sufficient to turn us from our course. Sometimes, indeed, we may arrive at the brink of a precipitous ravine like that of Michmash, the existence of which cannot be guessed from a distance; but even this hardly alters our line of march, and we have never yet failed by some means or other to drag our sure-footed beasts down the rocky sides and up the opposite slopes. These great valleys do, however, materially delay our progress; and on one occasion in Judæa it took three hours to advance a distance of only three miles.

Another difficulty which has especially delayed us during this spring is the entire want of drainage. In parts where there is no natural outlet for the water, the cornland is often an impassable swamp, and immediately on leaving the rock the horses will sink up to the girths, and are with difficulty recovered. Experience, however, has taught us to avoid these dangerous places, and to find a path across them. Great care is necessary also in riding over the bare rock, which is often so slippery from the rubbing of the camels' feet and the effect of the sun that no horse can keep its feet, and the danger of a heavy fall is not to be laughed at.

On arriving at the chosen point a communication with the other party has to be established. This is generally effected, either by the smoke of a fire or by the flash of the sun's rays in a small looking-glass. Seen from a distance, this resembles a long tongue of electric flame, and is, on a bright day, visible almost as far as the eye can see. The theodolite observations occupy from two to four hours, and are perhaps the most trying part of our work, necessitating a continual change of focus for the eye from the long distance seen through the telescope to the minute magnified divisions of the graduated circle. Thus, on returning to camp the day's work has extended over eight or ten hours.

The work of filling in the details of the map, which commences on the third or fourth day of the camp, requires even greater physical exertion. But this can hardly be explained in a brief address such as the present. I feel sure, however, that the accuracy of this part of the work is greater than could be expected, whilst the number of names averages six times that on the best existing map.

The difficulties of country already alluded to are also extremely important. Some of the valleys are absolutely impassable, and the fatigue of crossing a narrow gorge, perhaps 1,000 feet deep, is very considerable. Ruins are often hidden in corners or half way down precipitous descents, and take hours to examine. Sometimes when visited they prove modern or insignificant, but they are noted nevertheless, and our lists give details of all that is to be seen in every spot we have examined, and these are now to be counted by thousands.

The great stoniness of the soil is another cause of delay and fatigue. In England it can hardly be realised. The north road from Jerusalem to Nablus resembles nothing so much as a dry bed of a stream, and the by-ways are, as may be imagined, worse than the main road.

The danger of assault by the natives has also to be considered, although it is now less than at first. In every case such an assault has met with swift and severe punishment, and the fame of these acts of justice has spread, whilst, at the same time, the peasantry regard us with less suspicion and fear than formerly. It is to a firm and consistent line of conduct on the part of all members of the expedition that the freedom from annoyance from this source has arisen. The safety of a European when alone in Syria depends on his being well armed, and on a just confidence in his own superiority to a cowardly and treacherous race of natives.

In conclusion, I may call attention to one of those rewards for systematic labour which we occasionally obtain. I take as an instance the discovery of Khirbet Deir Serur, where we found a whole town previously entirely unknown, never before visited or marked on a map, though only ten miles from Samaria.

In the course of an ordinary day's work, Corporal Armstrong arrived at this important ruin, and after a brief inspection, saw that it was too extensive for immediate survey, and would require to be visited by me. At the earliest opportunity we therefore re-examined it together, and spent the day in surveying it, measuring its principal buildings, and noting all details of importance.

The ruin is situated on a hill-top, and presents a field of fallen masonry, with blocks of white limestone, in some cases ten feet long. On the east are the foundations of a large building with walls eight feet thick; and two curious blocks like pilasters, but unornamented, stand at the corners unsupported. The building in question is evidently for some public purpose, though it is not easy to say what. It is not a church, nor does it entirely resemble in plan a temple or synagogue. Its floor is tessellated pavement. Fragments of its ornamentation are scattered about, and a fine stylobate runs at the base of the wall. It seems to have been divided into three walks with pillars, and had steps to its great gate on the west. The rubbish, however, has filled the interior.

Passing along what seems to have been a main street, we find another large building at the north-west corner of the town. The main door-

way has a fine round arch, and the rubbish here must be over ten feet in depth. The pilasters of a side door are of classic moulding, and the great wall has stones beautifully finished, all with drafted margin.

The general impression with regard to this important ruin appears to be that it dates about the first or second century. It may turn out to be Herodian, and its excavation may lead to important finds of inscriptions or other treasures.

Such, plainly stated, is a single illustration of many similar explorations, and a review of our method of work leading to the valuable discoveries which we are making in parts of Palestine where a European has not been seen within the memory of man.

I have endeavoured very briefly to give not the results of our work, which you have already in the *Quarterly Statements*, but our methods, our life, and some of our difficulties. I have only to add what you are quite prepared to hear, that every sheet of our Survey brings out more forcibly and more clearly the absolute accuracy of the very slightest topographical indications and incidental notices contained in the historical books of the Old and New Testaments.

The CHAIRMAN: I first of all must make an apology for my being in the chair in the place of the Archbishop of York, who, I believe, has filled this chair every time since he undertook to be the President of the Palestine Exploration Fund, and I have always considered it doubly meritorious, if I may use such an expression, not only on account of his numerous important avocations, but because I consider in all geographical matters that it is a virtue not to be expected that any one should take a profound interest in a country he has not himself visited, that being a virtue to which I could not lay claim if I were called upon to take the chair (hear, hear); and therefore I consider that the Archbishop of York does deserve much gratitude from the Fund. (Cheers.) On this occasion we must all deeply deplore the cause of his absence to-day, which is wholly occasioned by his having had to cross the Channel to Paris, only in time to reach the deathbed of a beloved brother. With regard to the occasion itself, the Report and the address you have just heard leaves very little to add beyond what you all yourselves understand from it. No doubt the great addition made to our knowledge by this very careful and extended map is the most important step the Fund has made in advance, because this is a thing which is unquestionably superior to anything of the kind which has been done by anybody; and it never can be undone, and it has been undertaken at a period in the history of Palestine which is most important, because one feels that in these half-civilised countries the progress of civilisation will tend to tear away and uproot many things which, unless they are chronicled now, will never be chronicled at all; and these records can therefore now be made with the greatest effect. You have also heard from the address of Lieut. Conder exactly the process by which this map is made. To any one who has been in Palestine his address is most interesting, as giving you a picture of the ups and downs and everlasting undulations of these rocky hills,

and of the precipitous valleys which so unexpectedly yawn before you. No doubt the process is exceedingly difficult, and it must be in many respects exceedingly wearisome, and often, as he has described it, not free from danger. (Hear, hear.) But I cannot help hoping for him and those engaged with him this reward. There is no other country in the world in which they could be employed, not only with such results, but with such constant and immediate results. The geography and the monuments of Palestine are the most interesting of any in the world, and the most thickly scattered—I think not even with the exception of Greece. Greece is the only country which can come into competition with Palestine in regard to the narrow space within which these crowded vestiges of antiquity are packed together; and therefore at every turn these explorers may expect to find something which, if not absolutely new, is exceedingly important for the purpose of making a complete survey. (Hear, hear.) I cannot help comparing Lieut. Conder's account of the survey before us with another work in which I happen to be engaged—especially when speaking of the length of time which it requires—and that is the revision of the authorised version of the Holy Scriptures. We count week by week, and month by month, the ground we get over; and so it is with this exploration of Palestine; and, as I trust, within the next ten years we shall in both these works have arrived at something like the same result. As regards the Map of Palestine, we shall have given all the results that can be arrived at in this our time in the most complete form; and as regards the revision of the text of our translation of the Holy Scriptures, we shall have brought to bear upon it all the light which modern scholarship can bring to bear upon the letter of the Holy Scriptures. (Hear, hear.) We shall thus have been equally successful with the land and the letter of the Bible. It is true that does not supply the spirit; but it is something to have the framework, and it is something to have the letter, and I trust we shall have that fully within the next ten years. (Cheers.) The first resolution will be proposed by Dr. Manning.

The Rev. Dr. S. MANNING: The resolution I have to propose is to the following effect:—"That this meeting cordially approves of the action of the Committee, and of the efforts made by the exploring officers to carry out their instructions." This resolution implies two things: first, that the objects and aims of the Palestine Exploration Fund are deserving of our approval and support; and secondly, that those objects are pursued by the Committee and officers with laudable energy, discretion, and success. With regard to the first point there is little to be said here, especially in your presence, Mr. Dean, who by precept and example have shown us the value of topographical knowledge in the exposition of God's Holy Word. You have told us again and again in your writings how truth is to be illustrated by reference to the great facts of physical geography, and your writings have proved its importance in the elucidation of those documents upon which our most holy faith is established. (Cheers.) Though there will be no gainsayers to this proposition, a few

words may be permitted to me. We set ourselves to the exploration of the soil of Palestine with a view of confirming and illustrating the Holy Scriptures. Before we set ourselves to that work we must have a firm faith in the historical veracity and accuracy of those documents before submitting them to this crucial test. No system of falsehood, no system of semi-falsehood, can survive that test, because its inaccuracy must be exposed. If you could imagine any one testing the mythologies of India, Greece, and Rome by reference to the topography of their sites, their absurdity would be exposed to view—the bubble would burst at the instant of its contact with fact. If we come lower down, to the heroic period, and take the demigods of classical antiquity, and apply the same test, the myth would be obvious; it would not fit into the actual facts of geographical requirements. But we are perfectly secure of the Scriptures. The Scriptures of the Old and New Testament will be found exactly to adapt themselves to the facts and requirements of the case. We have no fear whatever of exposing them to this crucial test; and the result has been to justify our confidence, to clear up that which is obscure, and to confirm what is doubtful; and if our faith needed a firmer basis on which to rest, we should find it in these investigations. (Cheers.) I may perhaps be permitted to give one or two passing illustrations, not to add to your knowledge, but to show the advantages of this Society. We read that when the great leader and lawgiver of the Jewish nation was approaching the end of his honoured career, he ascended the mountain of Nebo, and the historian says that the whole country lay stretched out before him from the extreme north to the extreme south of the promised land. The infidel of former ages said that this was a physical impossibility, and incredible; others, affirming that we have here a slender shred of fact around which myths had gathered, explained the narrative as merely an exaggeration of later ages; and our forefathers in defending the faith had to affirm the existence of a miracle. But the officers of this Fund, Canon Tristram and others, have found that it was neither impossible, nor improbable, nor even miraculous; and those who have climbed where Moses stood have found that the writer of Deuteronomy has supplied a guide-book to the map which lay stretched at their feet. (Cheers.) Again, we read that on the opposing heights of Ebal and Gerizim the law was recited—its blessings and its curses—from the opposing hills. This seems very improbable, very difficult to understand, very hard to believe, insomuch that some writers have been eager to find another Ebal and another Gerizim where the event might have happened. We have but to visit the spot and all difficulty disappears. Here are two opposing amphitheatres, and you may stand in one or the other of them and try the experiment as I tried it last year myself, under circumstances the most unfavourable. Whether from the conformation of the spot, or the elasticity of the air in Palestine, despite all the difficulties of the case, not only could we in the valley hear the verses of blessing and cursing, but the readers on the opposite hills could catch the words with sufficient dis-

tinctness to take up the verses at the very point where the others left off. (Cheers.) The period in which we could most expect myth and legend to exist, if it exist at all, would be that of the great founders of the nation. Let us bring this to the same test. For instance, Abram and Lot are at Bethel about to divide the land between them, and we are told that from the point at which they stood they saw the rich and fertile plain of Jordan outstretched before them; beautiful exceedingly, as Eden, the garden of the Lord. When we look at the site of Bethel on the map, it is very difficult to understand that. We have but to visit the spot, however, and at once we have on the one side the barren rocks and wind-swept heights of southern Palestine, whilst the well-watered plain of Jordan in all its fertility and beauty is visible to the naked eye. (Cheers.) Take another instance in the life of the great patriarch. The announcement of the destruction of Sodom was made to him overnight, and he climbed the hill, and we are told he saw the smoke ascending. When we look at the map we find that long ranges of hills intervene between the two places, and it seems difficult to understand how this should be; but from the hill over Mamre, through a notch in the intervening chain, the whole of that district of the valley of the Jordan lies clear and plain, and the hot and quivering air is seen rising up distinctly from that very spot where Abram stood. (Cheers.) Glance at one of the poetical passages of the Bible, where the march of the Assyrians on Jerusalem is described. It is but an itinerary of the different villages from Anathoth up to Nob, just under the walls of Jerusalem. Step by step, by the officers of this Fund and other travellers, village after village has been identified, so that the narrative is proved to be a minute itinerary of that march, and the present names are in almost every case identical with those given us by the prophet. There is such a minute accord between the Land and the Book that they completely illustrate one another. Just as the pieces of a dissected map fit one to another, so do they coincide with the minutest possible accuracy. (Cheers.) We owe it to the labours of Captain Warren, Major Wilson, and Lieutenant Conder, that they have brought before us these elucidations and confirmations of the documents which form the basis of our faith and hope in Christ. (Loud cheers.) Admitting that the results have been of such value, yet, when we read that the resources of the Fund are so unexpectedly and sadly small, we cannot but feel that there is an idea abroad that the Fund is not doing the work we might expect it to do. Even those who are most earnestly desirous of a full exploration of Palestine stand aloof, look coldly, and speak doubtfully, when the question of supporting and contributing to this Fund arises. I would like to take the lowest statement I have ever heard, or that can be made, of the work of the Fund. I said to a gentleman in Jerusalem, who is earnestly devoted to this work, who is a warm and liberal supporter of it, and who has laid it under a heavy debt of gratitude by the services he has given it, "Will you tell me what is the net result of the explorations in Jerusalem? what is the sum

total of the amount arrived at?" This was last year. He said, "We began, believing we knew everything about Jerusalem, and that we only needed to fill in a few minute points of detail. We have now got so far that we know absolutely nothing. People were accustomed to talk about our church as the church on Mount Zion. I do not know where Mount Zion was." This must be taken with some limitation, because my friend is cautious and disposed to minimise results and magnify failures. That was his estimate. It came short of the truth. But even admitting its accuracy, I am disposed to say, Mr. Dean, that that is a great result to have obtained—to have detected errors—to have dispelled superstitious delusions, which have grown up age after age from the traditions and ignorances of the innumerable tribes and races who have held that hallowed spot in Jerusalem. We have not only to dig away vast mountains of *débris*, but to scatter vast clouds of prejudices. We must exorcise and cast out the idols of the cave before we can arrive at accurate knowledge; and it is only when error has been scattered that we can see facts in their true light. (Cheers.) Even if no more had been done than to disabuse our minds of false conceptions, and bring ourselves face to face with naked facts, this Society has done great and noble work. (Cheers.) But this was, I think, an under-statement of the work. It would not become me, who may be superficially acquainted with the operations of this Exploration Fund, to enter at great length to you, who know them better than I do, upon the actual results attained; but some of them have greatly impressed me. There is first that admirable contour plan in plaster of the rocky site of Jerusalem, giving us the actual surface and contour of the rock, as disclosed by exploration and borings. We have been dinned and pestered by endless disputations and discussions as to Acra, and the Tyropœon valley, and Zion, and Moriah, and other sites of Jerusalem, were bewildered with conflicting statements, and found that we were all groping in the dark. Now, though I do not mean to say that the sites of the Temple and the Holy Sepulchre have yet been decided, we have a sure basis of fact on which to rest, and with the contour plan before us, the time cannot be far distant when the topography of Jerusalem will be ascertained with certainty, finally and for ever. (Loud cheers.) And referring again to this survey of Palestine, in which there are from six to eight times as many names as are to be found in the best of all preceding maps, I think that is a matter for congratulation. (Cheers.) If the Fund had devoted itself to some sensational work—if some extraordinary discovery had brought out some exciting fact before the world—I believe its funds would have been in a much better position, because more people would have come to subscribe; but that would have been of incomparably less value than the work which we have now done. You will soon have the whole soil mapped out as the basis and groundwork of our future studies, and that is a work the importance of which it is impossible to exaggerate. And I would mention one point in connection with this, and that is the importance of putting down on paper the

names of the existing villages, which is of more value than it appears to be at the first glance. In Palestine nothing is more permanent than the names of places. Notwithstanding the influence of foreign invasion pouring over the country, the peasantry have retained the old scriptural names. Thus we find that Emmaus, whether the scriptural Emmaus or not, was known for centuries as Nicopolis, but it has now reverted to its ancient name as Amwās. Or take Bethshan, so memorable in connection with the history of Saul. After being called Scythopolis for centuries, it is now called Beisan, which is almost identical with the Bethshan of the Old Testament. And it is by no means impossible, even with regard to Jerusalem itself, that the same thing may be true. Its modern name of El Kuds may be but a revival of the name Cadytis by which it was known to Herodotus. This map is an invaluable result of the work of this Society; and we must, moreover, contrast the work done by the officers of the Fund, not with what has to be done, but with the means at their disposal. (Cheers.) If they had had exhaustless resources their work would have been quite equivalent to those resources. Remember the skill, energy, and versatility of resource which your officers have displayed, and the dull, stolid obstinacy of the Turkish Government. I consider they have displayed a courage and a fertility of resource which, on the battle-field, would have captured a city or won a campaign. (Cheers.) Imagine them sinking a shaft, and running a tunnel at an enormous depth, and creeping up holes from which a fox terrier might be excused for turning back in despair. I say that Captain Warren, Major Wilson, Lieutenant Conder, and Sergeant Birtles are worthy of the greatest admiration and all honour for the marvellous courage they have displayed in braving danger and surmounting difficulties. (Cheers.) But although so much has been done, it is as nothing to what remains to be done. There are Hebron, Machpelah, Bethel, the summit of Gerizim, with all its mysteries, and innumerable other sites as yet waiting to be explored. All this has to be done, but it cannot be done with the means at the disposal of this Society; and, as the Dean said, what has to be done must be done quickly. The result of my researches in Jerusalem is that the progress of the destruction of ancient monuments was never going on so rapidly as now. Wherever we turn we find bands of tourists with bags and hammers, hammering at the pillars of the temple, and they would carry off a chip from the altar of burnt-offering if it could be found. (Cheers.) A few years ago a line of wall was discovered—the famed wall of Agrippa; and we all know the great importance of the question where that wall ran. Those remains have disappeared—they have been carried away to build a new Russian convent and hospital, which is rising outside the Jaffa gate. Some time ago two monoliths were discovered outside the Jaffa gate, like those at Baalbec, hewn out of the rock. In consequence of the difficulty of removal they were left *in situ*, still attached to the native rock. Their measurements coincided with the description of Josephus. But one of those columns has disappeared.

It has been hewn and broken into pieces to build some cottages, near the Jews' almshouses which were built by Sir Moses Montefiore; the other remains *in situ*. A whole crop of legends are growing up around it, and it is being invested with a legendary and mythic halo, and it is safe. But this work of destruction is going on rapidly, and what is to be done must be done quickly—now or not at all. He who gives should give at once: he who gives quickly gives doubly. (Cheers.) With great confidence and earnestness I commend this resolution to your adoption. (Great applause.)

[The DEAN of WESTMINSTER having left the meeting, the chair was taken by the treasurer of the Fund, Mr. WALTER MORRISON.]

The CHAIRMAN: The Committee had such recent information of the cause of the Archbishop of York's absence from England that they had not very much time to get another chairman. We, however, asked the Dean of Westminster, who at once consented, but who has now gone to attend another meeting in the City, and I must ask you, therefore, to accept a less efficient substitute for him. I will call upon Mr. George Grove to second the resolution.

Mr. GEORGE GROVE: Ladies and Gentlemen,—It is very difficult for an unpractised speaker to follow an eloquent orator like Dr. Manning, but there are one or two things which struck me in Lieutenant Conder's Report, and I cannot help mentioning them to you as they struck me, because it appears to me that they form a strong testimony to the admirable manner in which this survey is being carried out, and the operations of the Committee and the efforts of the exploring officers are being executed. You will remember what Lieutenant Conder said about a new and large town being found, the existence of which was actually unknown and unsuspected before. It is perfectly impossible, it seems to me, that anything can be a greater testimony than that to what the exploration has done. There may be, and doubtless are, a hundred such cases in that little country; but that our exploring officers should suddenly come upon a large town, the existence of which was unknown, and the name of which has never come in any map before, is a proof that the efforts which they are engaged upon are quite worthy of being prosecuted. (Cheers.) Then I was much amused and struck with one thing. He said that they had overcome obstacles which baffled the great King of Assyria himself, when they came to the very ravine where Sennacherib laid up his baggage. Lieutenant Conder said "Never mind," and they went on, and have not been stopped by the ravine of Michmash, which stopped Sennacherib. That is the way he carries out his explorations. (Cheers.) There is another thing which has been mentioned by others, but which I think has not been sufficiently insisted upon. I myself have been editing, with the able and indefatigable help of Mr. Saunders, for Mr. Murray, a map of Palestine and the Holy Land. That map contains every name that we could scrape together with authority. Now we have cut out to-day a square of that map, equivalent to a square of Lieutenant Conder's map, and we find that while

my map contains 160 names, his contains more than 1,600 in the same space. (Cheers.) I do not mention that as casting any blame on to me or the map-maker; but there the map is, and this space of ground contains in Lieutenant Conder's map between eight and ten times the number of names which mine contained with all the information we could obtain before. (Cheers.) I think these are good indications of the way in which the survey is being carried out. What we proposed to ourselves when we started the Palestine Fund, was that we should get a map containing everything there was in Palestine, so that it should be the most accurate record of a country that was ever made, and that the Biblical places should be traced on the map by the modern names which, in nine cases out of ten, have been in existence from the remotest times to the present. I cannot describe to you the feeling with which I saw those sheets when they arrived the other day. I felt that one great object of my life, and that which I did so much for when I was better able, would be accomplished—and a man may take a pride in the accomplishment of the great object of his life. (Cheers.) We shall have at last the great thing which Dr. Pusey said was wanted,—an Ordnance Map of Palestine—that is a common term which every one understands. We shall have a map representing everything which appears above the soil,—every name, and every particular we can collect about every site. (Cheers.)

It is well that I should recall to you the machinery by which this is being carried into effect. We have Lieutenant Conder and a small party of surveyors, and Captain Wilson, who is better able to judge than I am, can tell you they are working as no party of surveyors ever worked before. They work not only during ordinary hours, but day and night, like men devoted to the employment, and they have worked at it, not because it was the thing they had to do, but because they liked to do it, and wished to do it. (Loud cheers.) Then there is Mr. Tyrwhitt Drake, who, though an amateur, is a devoted explorer. I am sorry to say the news received to-day of Mr. Drake's health is anything but reassuring, and it is doubtful whether, if he recovers, he will do any more work for us; but that is a reason why we should be more grateful to him. In a very self-sacrificing manner he has been with the party, and has done work which no other man in his position could do. (Cheers.) Then, before I leave the survey, I may say that if we get the money the map of the country on this side of Jordan ought to be finished in 1875. (Hear, hear.) The other side of Jordan is to be done by the Americans, who have raised £12,000 for the purpose. That, I think, is most encouraging to us, and ought to act as a good example. (Hear, hear.) But leaving the survey, I will go to Jerusalem, where M. Ganneau is carrying on the work which was begun so well by Captain Warren. That is more difficult than the other. A survey is a survey; you know what you have to do, although there are difficulties in the nature of the soil and the scrub; but in Jerusalem you have got that extraordinary fact that the old city is covered up, and it is only by boring

down and tunneling that you can find anything; it is all work in the dark; but the two men we have got there, M. Ganneau and M. Lecomte, are fully able to do that. (Cheers.) I do not think a more able, intelligent, and devoted person than M. Ganneau exists; I do not think even Lieutenant Conder himself is more so. I have known him for long,—he has lived in Jerusalem many years,—he is an excellent Arabic scholar, both in the literary and the vulgar Arabic, and is thus extraordinarily well fitted for the work he is about; and if we can get money enough to keep him there, we shall be sure of solid and substantial results with regard to the city of Jerusalem, which, after all, survey or no survey, must be the point of the greatest interest in Palestine. (Cheers.)

And now with regard to the money that must be raised for this. I do not think that any of you now present, or any one that thinks of these things in England, can realise the fact that we are *in want of money*. If we want £5,000 a year, spread over England, Scotland, and Ireland, it really is nothing. It is only for every one of you to realise and take home with you the fact that we want it, and we want you to get it from your friends. (Cheers.) We are at present in great difficulties. It is all very well to find in the report that we have received this year £300 more than last year, but our expenses are greater,—we have more parties of people at work in Palestine, and we must have more money to do it than we had when we had fewer men; and therefore I do appeal to you with all the earnestness that I am master of. (Cheers.) I should like to find,—notwithstanding what Dr. Manning has said,—some great piece of sensation there, such as that when we discovered that the real original Jerusalem was 150 feet below the present one, because I know that the report of that discovery in the *Times* brought us in more money than anything else, although in fact our actual results are more important than our sensational ones. (Cheers.) I hope my remarks have not been very tedious to you, and that you will take to heart what I have said, and that each one of you will resolve to do what you can to get us funds to go on with this great work. (Loud cheers.)

The Rev. Dr. PORTER: I cannot refuse to make a few observations on this resolution. As some who are here know, I take a very deep interest in Palestine, in everything connected with its history and geography; and especially I look upon that land as the scene where the greatest events that ever the world saw transpired; consequently it must be dear to the heart of every student of the Bible. For this reason especially it is dear to my heart. But I have made this subject a matter of special study for near a quarter of a century; I have spent a good deal of time in Palestine, and I believe, not even excluding Lieut. Conder, I am the most recent importation from the Holy Land. (Hear, hear.) It was only on Saturday that I arrived, after a journey of more than three months in the East, and I have gone over during that time a large portion of the country described by the speakers who have preceded me; and I must join my testimony to theirs in this respect, that such a map as is being prepared is abso-

lutely necessary for the student of the Holy Scriptures. (Cheers.) I had the pleasure of meeting M. Ganneau in Jerusalem. I saw there something of the work in which he was engaged, and I believe it to be of the deepest interest and importance to every one who would know Jerusalem thoroughly. (Cheers.) M. Ganneau is prosecuting that work with a rare enthusiasm, and I believe with a rare success. I have never seen any man enter so heartily into any work, or carry it on with so much tact and so much success. (Cheers.) With regard to the Survey of Palestine, it is my conviction that no one can take too much interest in such a work. I am here unexpectedly. I did not know anything of this meeting until yesterday, and I have been speaking Arabic for the last three months almost exclusively; but I am most anxious to show from my recent journey the absolute necessity of such a map as that which is being prepared by Lieutenant Conder. It was my privilege to travel with the best map of Palestine that has yet been made—that which has been referred to by Mr. George Grove, and which, through the kindness of Mr. Murray, was placed in my hands. I used it, and I found that not one-tenth of the places I discovered during my route in Palestine were marked upon that map. I shall give you a short sketch of the route I took. It was unusual; and being unusual, I shall point it out for that reason, because it is better fitted to illustrate the point I wish to put before you. I went from Joppa to Jerusalem, from Jerusalem to Hebron, and then down here, through this section [*referring to the map*] of the wilderness to Tekoa, and afterwards up the Jordan valley as far as the place where the River Jabbok enters the Jordan. Crossing the Jordan there, I ascended the highest point of Mount Gilcad, where I had the most magnificent views—views which the old patriarchs enjoyed. I went along the western brow of the mountains of Gilead, and down here to Mount Nebo. I stood two months ago upon the summit of that peak, and I enjoyed the very view which I believe Moses enjoyed, and saw that land which he saw, but which he was not permitted to enter; and when I put a question to a well-known Arab chief, and asked him the name of this peak, I was delighted when he said it was called *Jebel Neba*. I looked down into a valley immediately to my right, and saw a fountain there. I asked the name of that fountain, thinking it might be in the valley in which Moses was buried, and he told me it was called *Ain Mûsa*, “the Fountain of Moses.” (Hear, hear.) All this shows how absolutely necessary it is for us to have a full knowledge of the geography and topography of Palestine in order to see the minute accuracy of Scripture history. (Cheers.) I travelled from Nebo across the plain of Moab for some distance, and then took a course through this vast plain to Rabbath Ammon; here I found my map very defective. There were ruins everywhere around me of large towns and villages, but none of them appeared on the map. Then I went up in the course followed by Moses when he led the Israelites against Og, King of Bashan—following in his route, and in the route pursued by

Esau when he went to meet his brother Jacob; and I found that route, so interesting to us historically, an absolute blank upon the very best map of Palestine that has hitherto been published. (Hear, hear.) Now, is it creditable to Christian England, with all its wealth and its love of Scripture truth, to allow that section of the Holy Land to remain for so many ages a blank upon our maps? (Cheers.) In proportion to the veneration we have for our Bible, so ought we to contribute for the exploration and survey of that land. (Cheers.) I encamped upon the banks of the Jabbok, where Jacob had his wonderful vision; and then I struck out a new route, to visit a place which was dear to me in former days—Bashan—to visit those old giant cities, the existence of which some people do not believe. After some difficulties, and negotiations with Arab chiefs, we succeeded in securing an escort to conduct us from Gerasa over the mountains to Bozra, in the southern border of Bashan. I found at every step of my journey the remains of large towns, scarcely one of them noted upon any map. Then I journeyed northward, in footsteps I had followed before; and there, within a few miles of a city where I had spent some days sixteen years ago, I heard of the existence of a large town which I had never heard of before, the town of Siah, founded apparently by one of the Herods. I believe it was visited a few years ago by the Count de Vogüé. There I found a number of inscriptions, and, among others, a Nabathean inscription which my companion, Mr. Tombe, brought to this country. That shows the necessity of a minute survey of Palestine. (Cheers.) From Siah I came across the central plain of Bashan, and then in a zig-zag line across the northern portion of Gilead to Gadara. I not only found a great defect in the map there, but the most interesting sites misplaced—for example, Capitolias is on the map south of Arbela, when it should be north;—this shows how necessary it is to make a survey of that country. I came westward to Amatha, and then across the Jordan to Bethshean, and travelled by, to me, a new route, generally in the line of the Roman road, to Shechem, passing Tirzah, famed for its beauty in the Bible, and still famed for its richness in the present day. I then went by the ordinary route to Nazareth, Tiberias, and Damascus. The more I saw, the more I was impressed with the necessity of an accurate survey of the whole country. (Cheers.) There is an idea entertained by large numbers of Christian people in this country that Palestine has been so often visited by persons who are accustomed to investigate and explore, that there is no necessity for any organised Exploration Society to be sent abroad. This is a total, a complete delusion. I have spent as much time, as an amateur, in the exploration of Palestine as any man, and travelled there as much as any man not given to scientific pursuits; but it was impossible for me to explore thoroughly, even in the direct line of my route. For half a mile on each side I can see what ruins there are, but beyond that all is unknown except what I hear. If I pass through a mountainous country, beyond a height a quarter of a mile from me, there may be a large city, of which I know nothing. *It*

*is only by an organised Exploration Society that the geography of Palestine can be thoroughly investigated.* (Cheers.) We cannot fully understand the history contained in our Bible without a survey. Let any student take the Book of Joshua, and attempt to follow the descriptions given in it, or try to understand the lines of road and divisions there laid down, and he will find it impossible with our present knowledge of Palestine; but when we have a thorough survey made, then we shall be able to follow every line of route in any of the historical portions of the Bible. Or come to the Gospels—take the routes of our Lord—his routes through Galilee and Judæa, and you find that every illustration He makes use of is characteristic of the route He followed; and if you understand the scenery and the topographical features of the places in which our Lord spoke, a flood of light will be cast upon His words, and you will read Gospel history with a new and an absorbing interest. (Cheers.) I trust the people of this country will subscribe largely to this purpose. I do not see why £20,000 or £40,000 should not be contributed within the year, and this would complete the work at once. I trust, too, we shall not be content with surveying the western side of Jordan, but that we shall give some aid to our friends who have undertaken to survey the eastern side, not to take it from them, but to enable them to complete it sooner, for it cannot be accomplished too soon. (Loud cheers.)

The CHAIRMAN: I am sure we are very much obliged to Dr. Porter; no one has done more than he has for our cause. Those who are in favour of the resolution will hold up their hands. (The resolution was carried unanimously.) I will now call upon Sir Bartle Frere to propose the second resolution. (Cheers.)

Sir BARTLE FRERE: The resolution which has been placed in my hands is this:—"Resolved, That this meeting receives with great satisfaction the report of the progress of the survey of Palestine under Lieut. Conder and Mr. C. F. Tyrwhitt Drake, and rejoices to learn the prosperity of the American Society, and the establishment of a German Association for the systematic exploration of Phœnicia." I think, sir, after what we have heard from the gentlemen who have already addressed the meeting, there can be very little doubt as to the satisfaction with which we have heard of the progress already made, and the impression which must have been produced as to the great importance of all those researches in almost every branch of Biblical knowledge. But on hearing what has passed, a question suggests itself to me: How comes it that this survey has been hitherto so very ill-supported? And I think the cause is not very far to seek. There is, no doubt, an impression abroad that this Palestine survey is rather a matter of *dilettante* personal interest to a small knot of persons. The reading world in England has not recognised the more than national importance of the work—that the work is of interest to every branch of Christendom; and if the impression Dr. Porter has described as made on him as to the defects of our general knowledge could be brought home to the general mass of readers

of the Bible, they would be impressed with the great importance of this survey to the inspired word of God, and as the foundation of what is of such immense personal importance to every one. (Cheers.) Then there is another cause which has interfered with the prosperity of the Fund, and that was alluded to by Dr. Porter when he spoke of the general impression that we know a great deal about the country. I would ask gentlemen who are not perhaps so well acquainted with Syria as with Italy, to remember if this was not exactly the case with regard to Rome. I remember when I visited Rome first—thirty years ago—you did not meet one Englishman out of ten who did not believe that everything about Rome had been learnt long before; but at the end of some months' residence in the city, they found themselves discovering that there was hardly an ascertained point in the classical history of the city. Since then much has been done on the lines which, I think, it is desirable to follow in this Palestine survey, and that is, by a most thorough investigation, a complete cartography on the largest possible scale. This has been carried out in England. At first, people were content with the maps in Camden's "Britannia," and then they got to county maps, and then, after a long process of time, we got to an Ordnance Survey; but I doubt whether until quite lately we have realised the waste of time, money, and energy which was incurred by beginning at the wrong end—by using bad maps, and eye-sketches, and only arriving by a gradual development to a better kind of map. I speak in the presence of gentlemen who will correct me if I am wrong, but I believe if you have money to spend on map-making it is the best plan to do it in the best way from the beginning—(hear, hear)—and just in the way Lieut. Conder has done. (Cheers.) If you refer to the greatest authority we have on this subject. Sir Henry James, he will tell you that if the survey of England had only been begun in the way in which it is now carried on, hundreds of thousands of pounds might have been saved, and enormous incidental advantages gained; and this is of greater importance to realise when we are so straitened for funds. (Hear, hear.) I have heard people say, "What nonsense, when we know so little of the country, to have such an elaborate survey!" On the contrary, any man who knows anything of the economical bearings of the subject will admit that those surveys we are now asked to make are the very most economical way of spending any money you have, whether it is much or little. That, I believe, is a point which any gentleman who is skilled in surveying and map-making will confirm. (Cheers.) The resolution has a second portion which says that we rejoice in the prosperity of the American Society, and the establishment of a German Association for the systematic exploration of Phœnicia. I feel certain that all who have the prosperity of the work at heart will rejoice in this; but there is a feeling of dissatisfaction with ourselves. When we hear of £12,000 being raised in America, we ask, Why should we not have raised £20,000? It is difficult to find an answer to that. And when we see a German Association formed for the systematic exploration of Phœnicia, we may well look

to ourselves, and take care that we are not surpassed in this by our accurate, painstaking, and thoroughgoing German neighbours. (Cheers.) I ask those interested in the matter—having divided Syria and the work to be done between these three Associations—if they find that the work of other nations is done more quickly, more accurately, and more thoroughly than ours. It behoves us to do what we have to do—to finish in the most complete manner our part of the work, and then turn round and assist others. (Cheers.) I trust this resolution, in commending itself to this meeting, will incite every one to follow the track so well pointed out by Mr. Grove, and to look upon this as a matter of individual importance to every one. (Cheers.) Sir Henry James said that the Ordnance Survey never got a hold on the nation till we recognised the fact that every man could get a sheet and find the spot he was most interested in himself; and I will put it to the meeting if the map of Palestine is not of the intensest interest to every one, so as to make it a matter of thorough individual and practical interest to each one of us. (Cheers.)

Sir FREDERICK GOLDSMID: Mr. Chairman, Ladies, and Gentlemen,—I was about to express my regret that the task of seconding the resolution which has been moved by Sir Bartle Frere had not been put into more efficient and practised hands than my own, but there is no need for that, because on the present occasion everything that can be said has been already said by those practised speakers who have preceded me, and therefore I should be doing you the greatest service by calling your kind attention to and seconding the resolution which has been so ably spoken to by Sir Bartle Frere. (Cheers.) (The resolution was unanimously carried.)

The Rev. GEORGE WILLIAMS: I am called upon to perform a pleasing duty, in which you are to take part. I am asked to propose a vote of thanks to our two Chairmen, the Very Reverend the Dean of Westminster, and Mr. Walter Morrison, who has so ably succeeded him in the chair. I will not detain you with any words of my own, and I am quite sure the vote will be carried by acclamation. (Loud cheers.)

The CHAIRMAN: On behalf of the Dean of Westminster and myself I must return you my thanks for the compliment you have paid us. The Dean has always been present at our meetings, and may always be depended upon to fill up a gap when we find ourselves short of speakers, and he has not failed us under the loss of our usual chairman to-day.

## IDENTIFICATION OF THE ALTAR "ED."

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AMONGST the famous places connected with the first conquest of Palestine by the Jews, it is remarkable that not one has as yet been discovered which can be attributed to them as original founders. Hebron, so famous as a sacred spot, was a city of the Canaanites. Jerusalem, only captured as late as the time of David, was strongly fortified by the Jebusites. The same is true of Shechem, of Kirjath Jearim, and of all the famous strongholds and sacred sites of the country. There was, however, one site, a monument erected for all the trans-Jordanic Israelites, a great work constructed by the labour of all their fighting men, dating from the very time of the conquest, and a sacred spot jealously regarded as vying with the divinely-appointed centre of worship at Jerusalem. The identification and exploration of such a site cannot fail to be considered as of the highest interest, and it is to this task that the present paper is devoted.

The account of this site is contained in the 22nd chapter of the book of Joshua. The survey of Palestine was complete, the divided portions had been allotted to the various tribes, and the success of the first incursion and rapid mountain campaign in Judæa, had been followed by a period of peace and repose. Joshua found, therefore, that the services of the two and a half tribes who had left their possessions beyond Jordan to assist in the conquest of Western Palestine were no longer of immediate importance, and they were permitted to return to their possessions and families, to the uplands of Gilead and the broad corn-plains of Bashan, which they had preferred to the barren hills of Judæa. From their tents at Shiloh they commenced their homeward march, with the benediction of their leader and their brethren, "with very much cattle, with silver and with gold, and with brass and with iron, and with very much raiment,"—spoils still dear to the wandering Bedouin.

"And when they came unto the borders of Jordan, that are in the land of Canaan, the children of Reuben and the children of Gad and the half tribe of Manasseh built there an altar by Jordan, a great altar to see to." (Josh. xxii. 10.)

The remainder of the chapter is devoted to the dispute which immediately arose, and its final settlement. The remaining tribes, seeing a place of sacrifice thus erected in the desert, supposed it intended as a rival to the expected altar at Jerusalem, and regarded it as a sign of separation and schism on the part of their brethren. Jealous of this apparent rivalry, or fearing to incur once more the wrath of Jehovah, they

prepared, with their ordinary impetuosity, to turn their swords from the Canaanite upon their own people and late allies. The explanation given to their heralds was, however, fortunately sufficient to satisfy their political or religious doubts, and to show that far from being intended as a mark of division or religious dissent, the monument was erected simply *as* a monument, a point which from beyond Jordan might be indicated as showing the relationship with their western brethren, if not a fortress to command the passage of the river and form an outpost for the eastern tribes.

The revulsion of popular feeling at once rendered the monument one of the most favourite sites in the country—a bond of union between the divided tribes. "The thing pleased the children of Israel. And the children of Reuben and the children of Gad called the altar Ed: for it shall be a witness between us that the Lord is God" (verses 33, 34.)

In considering this account several indications of position are at once evident.

1st. The altar must have been in or near the direct route of the Reubenites, from Shiloh to the land of Gilead and Bashan. This route is very easily traceable. From Shiloh, the modern Seilun, a mountain road leads to the broad Wady Far'ah which I have had occasion to describe in identifying Ænon. The well-known Damieh Ford, the highway from all the eastern uplands to Central Palestine, and generally identified with the "City Adam," lies opposite to the opening of this broad valley. It was without doubt by this main passage, lying directly in their shortest route, that the returning tribes would have crossed in order to reach the oak-clad uplands of Mount Gilead, and the more northern corn-lands of the Hauran.

2nd. There can be no question that the altar was erected on the western side of Jordan. The words of the text allow of no other interpretation, and the very intention of the monument was to obviate the possible argument, "the Lord hath made Jordan a border between us and you," by continuing to hold a possession within the country of the remaining tribes.

There is, however, a verse in the account which, being ill-translated in the English, at first seems to militate against this second proposition. Ver. 11 speaks of the altar as "over against the land of Canaan, in the borders of Jordan, at the passage of the children of Israel." The Hebrew preposition, however, has, according to Gesenius, the meaning, *in the fore part, in front*, that is to say, *on the borders* of the land of Canaan; whilst the ford or passage of the sons of Israel need not refer to the original passage at the smaller ford near Jericho, but should rather be taken to be that by which the children of Reuben had just passed. The verse would read, therefore, "at the boundary of Canaan, by the Geliloth of Jordan, at the place where the Israelites crossed the river" to return to their eastern possessions.

3rd. The altar must have occupied a high and conspicuous position. The Septuagint translates the words used in the Hebrew μέγαν τοῦ ἰδεῖν;

the Vulgate, "altare infinitæ magnitudinis," an altar great to see. The Hebrew word, however, includes the idea of a *view*; and "an altar visible from a great distance," rather than of great size, is probably the correct translation. In confirmation of which we have the particle translated in English "*at*" Jordan, but in the Greek ἐπὶ, and in one of the Latin translations "*super*," *above*. The Hebrew (לָבַיִת) is the same as the Arabic, which has the meaning of *raised above*, or *high up*. It is evident that so important a monument would not have been placed in an ordinary or inconspicuous position. It was intended as a landmark and a beacon to be seen from the eastern side, and there can be no doubt that some prominent natural object, a hill of peculiar form, or conspicuous from the eastern plateau, is the natural site to be looked for. Like most altars, it would be placed on a hill-top, and on one easily distinguishable in the range of the chalk peaks above the Jordan valley.

4th. The altar was no ordinary work. It was a "great altar." This, as we have just seen, is the direct meaning of the Hebrew, and the opinion of all the translators. It was no mere pile of stones put up in a single night, like the rude monuments of Jacob and Laban. The fighting men of two and a half tribes were concerned in its erection, and the fame of their work spread throughout the country. There is nothing to show that it was not a work of time, and the slow progress of Orientals on a journey well accords with the idea that they may have remained in the beautiful valley for some considerable period whilst engaged in constructing a monument which was to be an everlasting memorial of their share in the privileges and religious observances which were to find a centre at Jerusalem. As a monument, and not an altar, it may well have consisted of hewn stones, and in this it would have resembled the ancient beacons to be found in other conspicuous points throughout Palestine.

In concluding this part of the question, we may retranslate the most important passage as follows:—

"And when they came to the Gelilloth of Jordan, which are in the land of Canaan, the sons of Reuben and the sons of Gad, and the half tribe of Manasseh, built an altar above Jordan—a great altar to be seen from far."

In passing we may pause a moment to glance at the word Gelilloth, usually translated *borders*. It is a word which has puzzled all commentators, and been variously explained. It is etymologically the same as Gilgal, and has been connected with the title of Galilee. It occurs in Josh. xviii. 17-19, where the Vulgate renders it "tumulos," and in the present chapter it is twice used and translated λαλαὰδ in the Septuagint, and "tumulos" by Jerome in each case. The root from which both words come has the meaning of "rolling," and the Vulgate rendering of a *mound* is without doubt the most correct. Dean Stanley has supposed it to refer to the Ghor, or upper plain of Jordan, as distinguished from Ciccar, now called the Zor, or lower river channel. He translates it "circles," and suggested a connection with the Scotch

links, referring to the windings of Jordan. My late colleague pointed out that the Gelilloth mentioned in tracing the boundary line of Judah were in all probability the tells or artificial mounds near the ascent to Adummim, of which I have given a full account in a previous paper. The word, however, has a wider meaning in other passages, and refers to places in the Jordan valley where no tells exist.

The manner in which the descent from the Ghor to the Zor level takes place differs very much in various parts of the valley. Sometimes it is a continuous line of cliff, as near Beisan; sometimes, as in the narrow gorge north of Wady Far'ah, the upper plain almost disappears, and the lower reaches near to the foot of the hills; but more generally there are broad water channels and low marshy creeks, with salt springs and mud flats which run irregularly, leaving round islands with flat tops on the level of the Ghor or upper plain, and steep rounded slopes. The appearance presented by these isolated mounds and the broken undulating network of channels is, no doubt, that which is indicated by the expressive Hebrew term *Gelilloth*. It appears, therefore, that Dean Stanley's explanation is probably to be accepted as correct, but the term would not naturally apply to all parts of the valley, as in places none of these *Gelilloth* or isolated fragments of the upper plain exist.

From the internal evidence we are therefore able to point with tolerable accuracy to the approximate position and character of the great Witness Altar. It must be near and above Jordan, on some hill-top west of the river, between the modern village of Seilún and the ford of the Damieh, placed in a conspicuous position, and possibly giving ruins of some magnitude. In addition to which we should hope to find remains of the name in some modern Arabic word.

There is but one spot in Palestine which will fulfil these very definite requirements, and that spot is perhaps the most conspicuous in the country. From the heights of Ebal its sharp cone stands out against the white valley; from the castle of Kaukab el Hawa, near Gennesaret, it is visible at a distance of thirty miles; from the shores of the Dead Sea and the plains of Jericho it stands forth prominently as a great bastion closing the Jordan valley; from the eastern highlands it is no less conspicuous, and from the Judæan watershed it is visible at a great distance. Every traveller who has been to Jericho has seen it; all have asked what it is, and been disappointed to find that it was of no historical importance, and had only a modern Arabic name. For nearly a month I lived at its foot, firmly convinced that so conspicuous a landmark must have played a part in history, yet utterly puzzled as to what that part could have been. To every explorer it has been a point of interest, and yet I know of hardly one who has examined it. The place in question is the high cone of the Kurn Surtabeh, the Surtabeh of the Talmud, and one of the most important of our trigonometrical stations on the eastern border of the survey.

The Kurn Surtabeh is the culminating summit of an almost isolated

block of hill which closes in the broader part of the Jordan valley on the north. The whole block consists of white marl capped by a brown hard oolitic limestone of late cretaceous or eocene formation. The very marked inconformity of the lower beds causes a sort of separation which cuts off this mass from the uptilted beds of the central watershed. From the summit the whole valley of Jordan is spread out like a map. On the south lie the black groves round Elisha's fountain, the sharp peaks and shining waters and distant blue ranges round the Dead Sea. Nearer is the white cone, which rises, a miniature of the Kurn itself, against the sharp rocky precipices of the Mountain of Temptation, and which I have endeavoured to show is the "rock Oreb" of the book of Judges. Dark ranges close in to the watershed, shutting out the view of the first beacon station of the Rabbis on Olivet, whilst unseen in one of the narrow gorges lies 'Ain Fasail and the ruins of Phasaëlis. On the east the great mountain wall stretches away north, broken only by the outline of the famous castle Kala'at el Rabad. At the very foot of the mountain, 2,000 feet below, lies a green plain. On one side a slope of nearly forty degrees stretches from the summit sheer to the base. The northern plain, gay with flowers and green with corn, is the mouth of the Wady Far'ah, a spot so charming that Vandervelde has marked it on his map a "beautiful valley." The stream from the fountains of Enon flowing through it is nearly perennial, and in winter scarce fordable. Its course, hitherto unsuspected, was found by us to run south round the Kurn, and parallel with Jordan for about seven miles.

In the plain stands the little white dome of Abd el Kader, and the ruined traces of another great town of Jewish or Roman times, with a necropolis, having a fragmentary inscription in old Hebrew on one of its tombs. These ruins I suppose to be those of the town of Archelais, known to have been near this spot. Beyond the plain are rugged hills, with steep slopes, the valley here becoming a mere gorge, and in the far distance are the hills of Gilboa, Tabor, and Kaukab, with the narrow thread of the Sea of Galilee, and the white crest of Hermon beyond all.

Standing thus centrally as regards the eastern and western possessions of the tribes, the Kurn is very difficult of approach. The ancient road, cut in steps, arrives at the summit on the south, but on every side the valleys are deep, narrow, and impassable, and the only natural ascent is from the more gentle declivities on the north, by which the watershed of the block is reached, and followed along its tortuous course till it leads to the actual summit. The importance of this remark as to the point of ascent will be seen later.

The great peculiarity of the summit consists in the existence of a cone or tell, with sides sloping at 35 degs. and about 270 feet high on the west, where it joins a narrow plateau. On other sides the slope is sheer to the base of the mountain, and the work of walking round the cone, which was necessary in order to visit certain caverns, required, as I found, considerable resolution, for there is but little foothold on the

soft, shingly slope, and nothing stronger than the flower stems for the hands, whilst the view to the fallen blocks, 2,000 feet below, is trying to ordinary nerves.

There can be little doubt that this extraordinary cone is only in part natural. It bears a striking family likeness to the smaller peak near Jericho—the rock Oreb. Seen from the south the two come almost in line, the Kurn Surtabeh seeming a gigantic double of the other. This sort of formation is due to a hard cap of small extent upon a softer base bed, which is worn away by the rains into a conical form. The extreme regularity in the present instance leads however to the supposition that human skill increased the already marked peculiarity of form. The great mound at Herodium (Jebel Fureidis) seems to be another similar case.

The constructions which we found upon the summit of the tell, when leaving our horses at its base, we with difficulty struggled up, were of the highest interest. In an oblong area of about 30 by 100 yards, enclosed by a ruined wall of fine hewn blocks, is a great platform 18 ft. high, consisting of ten courses of stones beautifully cut, and averaging three or four feet in length, with a broad marginal draft. The platform is long and narrow, apparently solid, and of a most puzzling character. It was at once evident that it was either Jewish, or at the latest Roman work, and intended as a gigantic altar or beacon.

Careful search showed remains of fires, which had been kindled on part of it, and these we suppose to have been the beacons mentioned in the Talmud. The most striking point was, however, the great size and good workmanship of the stones, which were of great weight; and the labour of bringing them to the spot, hewn, as they must have been, at least below the foot of the tell, or 270 feet from their present position, shows that this work must have been a monument of no small importance. I discovered in a later visit the probable quarries whence the stone was brought, a series of caves in the south-eastern side of the hill, about the level of the little western plateau. The base of the tell on the side of this plateau is strewn with huge fallen blocks from the outer surrounding wall, and on the east lies a confused mass of fallen masonry, showing that the monument was once larger or probably more lofty than at present.

There are two other peculiarities in the ruins deserving notice. The first is a curious aqueduct, which runs round the whole mountain block. Careful levelling showed us that it was impossible this channel could have communicated with any existing spring. It was merely intended for the collection of surface drainage and rainfall, and leads to several large cement-lined cisterns on the north-east side of the cave. The second point is the apparent existence of an ancient garden or fruit yard—a series of terraces very visible from our camp in Wady Far'ah.

Such are the existing ruins. It now only remains to point out how perfectly this site fulfils the requirements for that of the Witness Altar. In the first place, the Kurn Surtabeh stands above the Damieh ford,

and beside the direct route to it from Seilún, or Shiloh, upon the western side of Jordan. Secondly, it is, as we have seen, a point remarkably conspicuous from a great distance on every side. Lastly, upon its summit remains to this day the ruin of a great monument of the kind indicated in the Bible account. At the foot of the mountain lie the Geliloth of Jordan, the ground being of that peculiar broken character to which I suppose the word specially to refer.

When, in addition to these indications, we find a trace of the original name, the conclusion seems irresistible. For some time I sought this in vain on the map. It is a question which I leave to the learned whether there can be any connection between the name Surtabeh and the Hebrew (מִזְבֵּחַ) Metzbeheh—the altar. The remaining summits of the block are called respectively El Musetterah, Ras el Kuneiterah, and Ras el Hafireh. The real name, as often happens, has deserted the place itself, but may still be traced in the neighbourhood. I have already pointed out that the natural ascent to the Kurn is from the north. On this side I find marked on our map as a valley name Tal‘at Abu ‘Ayd. *The ascent of the father of ‘Ayd.* The peculiar use in the vernacular Arabic of the word Abu, as meaning that which produces, or leads to or possesses, would make the natural translation of this term to be, "The going up which leads to ‘Ayd." Between the Arabic *‘Ayd* and the Hebrew (אֵיד), no scholar can fail to see the identity, and thus, though the monument itself has lost its real name, the ascent to the summit, by which the strong men of the two and a half tribes must have first gone up, preserved the memory of the Witness Altar.

To future travellers in Palestine, this identification cannot fail to be of the highest interest. From the ordinary camping ground at Jericho the great peak is distinctly visible, and no longer will stand out with a forgotten story, but rather as the greatest monument of the great deeds of that first conquest, and in the words of the last verse in the chapter, as a "witness between us that the Lord is God."

In conclusion, I feel I can point with some pride to this identification, as showing the satisfactory character of our work. It was not till after my return to England that I first turned attention to it. At the time, we could have no idea of the importance which would attach to the name Tal‘at Abu ‘Ayd, and it was merely collected by one of my non-commissioned officers with the same mechanical care and conscientiousness which marks the work of the whole party. The name has now served to clinch an important argument, and settle an identification of the highest interest.

CLAUDE R. CONDER, Lieut. R.E.

9th July, 1874.

# THE SURVEY OF PALESTINE.

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A PAPER READ BEFORE THE BRITISH ASSOCIATION.

BY C. R. CONDER, R.E.

THE country included under the name of Western Palestine, and to which the present Ordnance Survey is confined, is bounded by the Jordan, and the sea, and extends from Dan to Beersheba. It contains approximately 6,600 English square miles. The desert shuts it off on the south, and on the north the line taken will follow the River Leontes and extend along the parallel of latitude to the sources of the Jordan near Banias—the ancient Dan.

The country thus bounded may be divided into five geographical districts. Two of these are on the south, where the geological formation is a gentle anticlinal, giving a high and difficult hill country, of an average elevation of about 3,000 feet in the centre, with a broad plain on the west, whilst a rapid descent on the east leads to the great crevice of the Dead Sea. The hill country is that of Judæa. The great plain is that of Sharon. Between these two lies the less remarkable feature of the Shephalah, a low range of hills of a cretaceous limestone not conformable with the Dolomitic beds of the watershed.

North of Nablus (the ancient Shechem) the character of country changes, the central watershed divides into two, giving one chain of hills running north-west and terminating in the great bluff of Carmel, which rises 1,300 feet above the sea, whilst a second chain continues due north and separates the Jordan valley from the great plateau extending between the two ranges, and generally known as the plain of Esdraelon. The fourth district is the difficult hill country of Galilee, and the Safed range with a mere strip of plain on the coast, for the plain of Sharon narrowing suddenly is bounded by Carmel on the north, and in Phœnicia the hills come down almost to the sea itself. Last, but not least, the Jordan valley forms an absolutely distinct division, differing in climate, in fauna, and in flora, and inhabited by a different race. Commencing at about sea level on the north, it descends to 600 feet below that level at the Sea of Galilee, and thence to nearly 1,300 feet, the level of the mean surface of the Dead Sea below that of the Mediterranean.

Of this extent of country many districts are but little known. The plain of Sharon, Carmel, the greater part of Judæa, and the central line of the country, have been often visited. Philistia, or the south-western plain, was almost unknown before the time of Captain Warren. The country of the Beni S'ab, or Shephalah, west of Nablus, had been quite

an unknown country until surveyed by the present party. The Jordan valley was best known by Captain Warren's rapid reconnaissance, but the district between this and that included in Major Wilson's work was almost a *terra incognita*. The Sea of Galilee has been carefully explored by the latter officer, but an unvisited district said to contain synagogues and other remains of interest exists north of this lake. Wherever the present survey party has gone over new ground it has met with places of extreme interest and obtained results of great value.

The work which is now being carried on consists in a regular trigonometrical survey to the one-inch scale of the whole country thus described, together with supplementary researches, antiquarian, Biblical, and physical. It was first commenced in October, 1871, by a party of Royal Engineers, consisting of two non-commissioned officers under command of Captain Stewart, R.E. Mr. C. F. Tyrwhitt Drake volunteered to accompany the expedition and give them the advantage of several years of acquaintance with Syria and a good colloquial knowledge of Arabic. The expedition met with a serious check at the outset in the severe illness of the commander, who was obliged, by medical advice, to return almost immediately, and subsequently to resign his appointment. Meantime Sergeant Black, R.E., was left to prosecute the work unaided, the party being under Mr. Drake's care. He at once proceeded to measure a base and extend the triangulation, connecting it with the Ordnance Survey of Jerusalem, and advancing north towards the plain of Esdraelon, where it was proposed to obtain a check by measurement of another line. Thus, by June, 1872, 560 square miles had been surveyed and finished, and the party rested for a while at Nablus.

Meantime I had been appointed to succeed Captain Stewart in the command, and arriving in the country joined the camp at Nablus and immediately recommenced the out-door work. By September the second base line had been measured and found to give most satisfactory results. The triangulation was thence extended with fine well-shaped triangles towards the north, and the great plain completed, the party remaining for the two winter months in a house in the German colony at Haifa, under Carmel, and employing the fine days in completing the map of this ridge. In March, 1873, they turned their faces southward, connecting on the east with the former work and extending it to the sea-coast. In April Mr. Drake left for England, his health being impaired by the climate, and it was not before six months had elapsed that he was able to return.

May was spent still in the plain of Sharon, and in June the Shephalah was surveyed, a district almost entirely unknown, and into parts of which no European had as yet penetrated. Another non-commissioned officer was at this period added to the strength of the expedition.

During the heat of the summer the party retired to the Antilibanus, and visited Hermon and Baalbek. In October the work was recommenced and extended south of Jerusalem, whence the party proceeded to the Mar Saba desert, and so arrived at Jericho and the north shore of

the Dead Sea about the middle of November. Here another serious check was experienced in an attack of fever from which Mr. Drake suffered extremely, whilst many of the native servants were dangerously ill. It was found necessary to retreat to Jerusalem, and the bad weather set in almost at the same time. The unexampled severity of the winter, with other causes, delayed the expedition until the end of February, when they again took the field and advanced up the Jordan valley, the survey of which was completed up to the Sea of Galilee (in spite of the most unfavourable weather) by about the middle of April. The plain of Sharon was then completed, and in May of this year I returned on duty to England, bringing home the results of the two years' work. The non-commissioned officers in the meantime remained in Jerusalem occupied with various indoor duties. The survey extended at this period over 3,000 English square miles, including the whole of central Palestine from Nazareth on the north to Bethlehem on the south.

According to the latest reports from the sergeant in charge of the party they were all in good health and busily employed with sedentary work. But one sad exception has to be made. Mr. Drake, who had recovered very rapidly from his first attack of typhoid fever, and had accompanied the party during the trying spring passed in the Jordan valley, was again seized in Jerusalem. In spite of the great kindness and care of a skilful English physician, his liver became affected, and on the 23rd of June he died. His name is well known to geographical circles as a hardy and energetic explorer, and his loss will be severely felt by the expedition in its future work.

The map has been prepared on Sir Henry James' system of tangential projection, in sheets containing 30' of longitude and 20' of latitude, giving about twelve sheets in all. Of these, six are complete, and three have been brought home to England. The remaining four sheets include some very difficult country, but the most delicate and dangerous part of the work, the survey of the Jordan valley, has been already successfully completed, and there is every reason to hope that the future success will be equal to that of the work already accomplished.

The principles of the survey may now be briefly described. The first base was very carefully measured with chains corrected before and after use, by means of a standard steel chain, graduated for the temperature of the spot. It was connected with the trigonometrical point at Jaffa, which is taken as the initial point for calculation of the difference of longitude, Jaffa having been fixed by the Admiralty from the known longitude of Alexandria. The mean length of the line was 4.3 miles. It was checked by observations to a point opposite the middle, the whole length being calculated by the angles thus obtained from the measured length of a part. The triangulation was thence extended eastward with lines from three to ten miles in length, and connected with Major Wilson's points at Jerusalem. Thence it was carried north to the plain of Esdraclon, where the second base was established. The length of

this base was four and a half miles, and the difference between its measured and calculated lengths gives an error of '03 per cent. This was considered as extremely satisfactory for the style of work expected, and especially when the difficulties presented by the mirage and other atmospheric phenomena, the destruction of cairns, and the peculiar form of the triangulation, extending over 60 miles in length by about 10 in breadth, are considered.

The ends of the base, after it had been laid out with a five-inch theodolite, were marked by cairns, the southern one being set roughly in mortar, with blocks of considerable size. The base was traced on a distant point, so that by calculation it could be extended about eight miles further. Observations for latitude were taken from the southern end, and a true astronomical bearing; it was measured and checked like the plain of Sharon base, and every precaution taken to insure accuracy. A fine line, almost at right angles, was obtained between two good points on Gilboa, and on the volcanic cone of Sheikh Iskander, east and west of the plain of Esdraelon. The average length of the side of a triangle was in this part some 15 miles, but in the Judæan hills it is never greater than 10 miles.

Besides this check thus obtained on the work, several others were established. The vertical heights, starting from the sea-level at Jaffa, and brought through the centre of the country, were carried down to the dome of the Convent on Carmel. The height of this was then obtained by a simple trigonometrical process from the length of a line measured on the beach. Further checks are also obtained along the shore by the measured height of buildings in the sea used as trigonometrical points. The heights across the country were compared with the very accurate levelling by Major Wilson, R.E., and the difference was about four feet in the level of the Dead Sea, a very satisfactory proof of the character of work in the new survey. Further checks and very long lines will be obtainable on working out the observations sent home for calculation. One of these gives a fine line of over 35 miles, observed both ways, and immediately connected with a true astronomical bearing. Being nearly north and south it will serve as a check for longitude. Another line has also been observed both ways, from Carmel to Hermon.

A check of the longitude was obtained by comparing the minaret at Acca, as fixed by the triangulation, with its position according to the Admiralty. The agreement was very satisfactory.

The observations thus obtained and checked are calculated at once, and the points laid down by the calculated lengths. The detail is then filled in by the following system of interpolation. From each trigonometrical point a large number of observations read to the nearest minute are taken of all prominent objects, village towers, mosque domes, cross roads, prominent trees, or any other easily distinguishable point. The intersections of the line, from two or more stations, when scored by protraction, are considered sufficient to fix these secondary points.

The work from each camp is then divided into four, and sheets of tracing paper prepared, upon which the stations and fixed secondary points are shown, and the remaining detail is filled in upon the ground by interpolation with the prismatic compass, from observations taken to three or more of the fixed points.

With practice, from eight to twelve square miles per man can be completed by this means in a day, and thus, in four days, the whole amount, averaging about 100 square miles, is easily finished. Allowing two days for the trigonometrical observations, one for plotting, one for finishing, one Sunday, and a day for archæological work, this gives an average of ten days for a camp.

The rate of work on first starting was about sixty square miles per month. By the time of my joining, it had risen to 100; from that date till the winter 1872-73, it increased to about 150; and from then till October, 1873, it was about 180. From that time, the party being augmented by one man, it has continued steadily to give an average of 280 square miles completed monthly, and there seems no reason why this average should decrease in future work as long as double theodolite parties and four detail sketchers can be maintained.

The whole of the work is done on horseback, and the method pursued would be most especially fitted for military reconnaissance, where prominent points could be laid down from the map and detail sketched from the horse's back, by interpolation, with the compass.

But one other part of the map work remains to be noticed—the execution of the hill shading. This is done by myself in on separate prepared sheets. Each surveyor is provided with one of Abney's improved clinometers, with which he takes occasional observations of characteristic or peculiar slopes, marking them on the ground. He also sketches the shape of the hill-tops on the spot, and, from these notes, together with a good general acquaintance with the piece of ground being surveyed, it is quite possible to represent the hill features with an accuracy proportionate to the scale. I have found also that a series of outline panoramic sketches from the various stations is very useful for the execution of the hill shading, as well as for geological purposes.

The principal heights are obtained, as already explained, by angles of elevation and depression. For minor points we are contented with corrected aneroid observations, of which we have now secured altogether upwards of 1,500, or one to every two square miles of country.

The method of correction is as follows:—The aneroids are read every morning in camp with the mercurial, the readings being kept in a book devoted to meteorological observations. The observations are made at wells, ruins, valley junctions, springs, hill-tops, or any other place which can easily be identified on the map by its name. A small pocket thermometer is kept with the aneroid under the same conditions and read with

it. The attached thermometer is also read with the mercurial, and the aneroid is again read on return to camp. By these precautions the correction of the aneroid reading is made very exact, and although we have not discovered any law of variation for the pocket instruments, still, considering the elevations not to exceed generally 3,000 feet above sea-level, the results are likely to prove satisfactory. As, however, the constant transport of the mercurial is liable to destroy its perfect accuracy, it will be desirable to check the heights of camps obtained by it. This will be easily done by means of the levelled heights of a great number of the camps, and in other cases by the aneroid readings at the trigonometrical stations whose heights are known.

Astronomical observations are taken at every camp, both to serve as a rough check during the progress of the work (although the accuracy of such a method is not comparable to that of careful triangulation), and also to keep a record from time to time of the variation of the compass. True astronomical bearings of the longer lines are also obtained, as, for instance, that of the check base, which was traced on a distant point, and of the line already mentioned from Hermon to Carmel. The other observations are for latitude and for time, and have all been satisfactory, the most important being a series taken from the summit of Hermon, by means of which, with a true bearing, the latitude and longitude of this mountain will be very accurately fixed. In addition to this, Hermon will finally be fixed by triangulation, and its height obtained by two vertical angles, the one to the mercurial station at Bludan, the other to the convent on Carmel, which is fixed by immediate measurement from sea-level. This mountain forms, in fact, an outlying point, to which long lines can be obtained from most of the principal points in the survey.

I may now turn to another department of the work, which is of the greatest importance, namely, the nomenclature. Nothing is more striking in Palestine than the manner in which the original Hebrew names are still to be found under slightly modified forms in the Arabic. Very often a later Roman name by which a town may have been known in Herodian or early Christian times has altogether disappeared, and the original Biblical name has reasserted itself. Beisan, the ancient Bethshean, was subsequently known as Scythopolis, a name now entirely lost. This is but one instance out of many.

The collection and correct spelling of these names, as tending to throw invaluable light on the geographical passages in the Old and New Testaments, and especially in the early books of Joshua and Judges, forms a most important and anxious part of the survey work. The danger of only receiving a fictitious or wrong name in unexplored parts is very great, as ignorance, stupidity, suspicion, and perverseness, alike incline the natives to give a lying answer to the plainest question. The practice obtained by the non-commissioned officers has proved throughout most important in this department.

The names, which are kept in lists arranged alphabetically for each

sheet, are invariably obtained from natives belonging to the neighbourhood. They are checked by reference to at least three persons. They are written down in English on the spot, and on the evening of the same day are pronounced by the surveyor in presence of the native guide, and of a competent Arabic scholar. This latter duty was the main responsibility of my late colleague, who had an unusual familiarity with colloquial Arabic. The greater part of the names have been gone through with an educated native scribe, and no pains has been spared throughout the course of the work to ensure correctness both of the spelling and pronunciation of the word, and also of its position on the map. A sort of test of this accuracy is found in the numerous identifications which spring up as the work proceeds. As an instance, I may mention the identification which I have just been able to make of the Kurn Surtabeh, as being the Altar 'Ad mentioned in the book of Joshua. The requirements were all fulfilled, but the name appeared to be lost, until I found marked on our map the Tal'at Abu 'Ayd, or ascent leading to 'Ayd, as the name of a broad valley north of the mountain. This satisfactory confirmation of the other evidences is the result of the systematic collection of every name of however little its apparent importance at the time. Nor is this a solitary instance of the subsequent importance attaching to a name apparently obscure and of doubtful antiquity.

The number of names collected is very large; it averages seven or eight times that on the best existing previous map. On the Jerusalem sheet alone there are considerably over 1,600 names, and although in the less densely populated parts, such as the great plain of Esdraelon, and the other broad corn plateaux, the number is smaller, still it seems probable that scarce a single name of any interest or importance can have been omitted. In a country like Palestine an average of two names per square mile is greater than would at a first glance be expected. The care and attention bestowed on their correct location will, it is hoped, render the map invaluable in settling the disputed points of the ancient geography.

The main object of the map, as first projected, was indeed antiquarian. The thorough examination of the country, with notes of all existing ruins and indications of sites worth excavating, formed the main part of the instructions. Natural history, geology, and physical geography, were also to be studied as far as circumstances and the aptitude of the observers allowed. This work, therefore, forms one of the main labours of the party, and often delays the actual survey considerably.

The method pursued is as follows:—Every ruined or interesting site is visited and noted on the spot. Such as contain nothing of importance are not specially reported, but merely included in alphabetical lists arranged for each sheet of the map.

Any, however, where distinguishable relics are still to be found, are at once reported and visited by myself. All buildings, dating earlier than the times of Turkish occupation, are planned with more or less.

detail according to their importance. Of the ruins, no less than 350 are noted on a single sheet of the map. The special plans and surveys, including the sites of Jewish and Roman towns, temples, churches, synagogues, tombs, crusading castles, sections of aqueducts, artificial caves, and early Christian convents, none of which have been previously planned or explored in a satisfactory manner, now number more than seventy. We have added seven churches to those planned by De Vogüé, and obtained in the unexplored country two sites of towns, evidently of some importance, with traces of the public buildings, and details indicating date, sites never before visited and entirely unknown.

The plans are executed in various ways. Cæsarea was surveyed by a traverse with the 5 in. theodolite, the buildings measured with a chain, and placed by compass angles from the points fixed by the traverse. At Beisan we had a base given by a short trigonometrical line, and used this with a triangulation, which was plotted, the details being filled in with the compass, and the principal buildings measured and plotted to a scale of 20 ft. to the inch. Athlit was executed by a compass traverse which, with pacing, plotted in a very satisfactory manner.

In the survey of caves the best method is the determination of main lines by a compass bearing, and the plotting of the walls by offsets, as in a traverse; the same method is also very useful in the planning of the complicated systems of catacombs found in many parts of Palestine. For such buildings as the ruined churches and convents, direct measurements of the walls are preferable; but in all cases where the work is not plotted to scale on the spot, it is most necessary to remember that numerous cross checks, and a great number of measurements, save time and ensure accuracy in the subsequent working out. Where possible the site is always revisited, plan in hand, and any trifling inaccuracy corrected on the spot.

It may be interesting to enumerate some of these ancient sites with the more striking identifications resulting from the survey, and to give some account of the geological notes which have been kept throughout the progress of the work.

In his interesting work on rude stone monuments, Mr. Fergusson accuses the Palestine Exploration Fund of being too busily employed in map-making to find time for the investigation of the real antiquities of the country. To this accusation our work happily gives a complete answer. Whereas no single example of a rude stone monument was known in western Palestine at the time of this publication, Mr. Fergusson will be delighted to hear that we can now point to four which are of undoubted character. The first is a cromlech with sepulchral barrows, mentioned by Mr. Drake in an early report. By the curious constructions north of Jerusalem, known as the Kabûr beni Israim, is another fallen rude stone monument. Apparent remains of a third exist east of Jerusalem, and a fourth of very large stones is found near the plain of Esdraelon. In addition to this we have found some very curious monuments south of Jerusalem, which may very probably be

sepulchral mounds of early date. We have also collected flints from various parts of the country, although I failed to find any in the traditional tomb of Joshua, where they are mentioned by a French explorer.

There is no doubt that a very exaggerated estimate has generally been made of the antiquity of ruins in Palestine. Many which have been commonly called Jewish or Phœnician, turn out on close inspection to be Crusading or Saracenic, and our results are often valuable only in a negative sense. The traces of Jewish art are hardly worthy of notice, and the general impression produced is that their constructions were neither magnificent in proportions or design, nor durable in materials. The various rock-cut cemeteries, and traces of ancient cultivation, are almost the only undoubtedly Jewish remains in the country excepting the synagogues first discovered and described by Major Wilson.

The interest of the country from a Biblical point of view consists in the identification of sites from etymological and literary argument. Amongst the interesting identifications made by the survey party may be mentioned the altar 'Ad, already referred to, the site of Ænon where St. John baptized, Zaretan in the Jordan valley, Gilgal—a confirmation rather than a discovery, the hill Scopus, north of Jerusalem, and amongst the less definitely indicated in Scripture, the Rock Oreb and winepress of Zeeb, mentioned in the book of Judges, the probable tomb of Samson, with the sites of the town of Archelais, Ecbatana, and Sozuza, and a number of obscure Biblical names interesting as fixing the boundaries of the various tribes.

Passing from this period to that of the Roman occupation of Palestine, the ruins become far more numerous and important; they include fine roads, long aqueducts, temples, theatres, race courses, and city walls. Among the principal sites are Cæsarea, Ecbatana, Antipatris, Jericho, Scythopolis, Tantura, Sebaste, and a host of minor places of interest. All that remains above ground has been noted and sketched, measured and planned. At Cæsarea the temple built by Herod and dedicated to Augustus was discovered close to the Crusading Cathedral. To this group belongs the newly discovered town of Deir Serûr, probably the ancient Sozuza. Its fallen tower blocks, some 10ft. in length, its fine round arches, its semi-classic mouldings, its walls of finely drafted masonry, and the great synagogue or temple, with tessellated floor and walls 8ft. thick, all point to this ruin as a place of no little importance. To this same period also belong several groups of finely ornamented rock-tombs of semi-classic Greek character, mostly new discoveries, and resembling closely those already well-known at Jerusalem. Many buildings also, like those at Jebel Fureidis (the Ancient Herodium) are now for the first time thoroughly explored, and properly planned, although they have been known for a considerable time, among which may be enumerated the tomb of Joshua at Timnath, a site of no common interest, and perhaps one of the best authenticated identifications yet made in the country.

The next step brings us to the early Christian times, for of the troublous period after the destruction of Jerusalem, there are scarce any topographical indications, unless we except the site of Bethel. This strong and almost impregnable site, where, under Barcochebas, the Jews made their last stand in revolt, is the modern Bittér, and close to it, in a natural fortress, are ruins which still keep the name (as discovered independently by Captain Warren, and afterwards by myself) of Khirbet el Yahúd, Ruin of the Jews, a traditional title, for which no reason is now assigned by the natives.

The great building ages of Justinian and the Crusaders have left many noble monuments throughout Palestine. Amongst the principal works of the first period may be mentioned the two great convents of St. John, on Jordan, and of the traditional Gilgal, erected in the Jordan valley, and never before planned. In the wild hill country of Judæa we also discovered another fine ruin, known as Deir Kal'aah, the Convent Castle. The details of its architecture are of extreme interest, as throwing light on the disputed question of the date of that style which is found not far away in the Jerusalem Golden Gate. Five convents in all were here discovered at no great distance apart in a district previously almost altogether unknown.

The Crusading works occur in every part of Palestine, and are invariably magnificent. The finest ruins, however, are at Athlit, the Castel Pelegrino, where first the pilgrims of the 12th century touched the soil of the Holy Land. Its magnificent masses of masonry, its strong bastioned walls, its great vaults, running the whole length of the town, with groined roofs and sculptured capitals, show the splendour which it must have displayed in its palmy days. The work has more than once been taken for Phœnician masonry, and curiously enough in the neighbourhood is the only Phœniciau tomb we have yet seen in the country, but the pointed arches and other details of architecture leave no doubt as to the origin of the town.

From this landing-place a chain of forts leads across Carmel to Nazareth, and south to Ramleh and Jerusalem. Wherever an important military position is to be found throughout Palestine a Crusading castle will also be found. The workmanship of its outer walls, large, strong, and well cut, of hard limestone or harder basalt, and the details of its interior, remarkable for beauty and finish in the stonework, the places of the old portcullises, the secret posterns, the winding turret-stairs, the groined roofs, the chimneys, and sculptured niches, are all of interest to the architect. The knowledge of art and skill in choice of good material, both attest the cultivation of the builders. The numerous churches, with even finer finished stonework, frescoes, &c., rude graphitæ, walls thick enough for a castle, and capitals of florid execution, are still more worthy of study. Of one of these, the great church at Ramleh, now a mosque, I am, I believe, the first to have made a plan, and no church yet seen in Palestine exceeds it in size or workmanship.

Last in order come the Saracenic works, fortresses and khans, mosques

and minarets. They are distinguished by the smaller size of the masonry, by the different form of the arches, and by a peculiar cement, harder even than the stone, and found in no other work in the country. In many instances Saracenic additions to Crusading work are noticeable, and in some few it is difficult to know to which era to ascribe the work.

It will be seen, therefore, that we have added something of interest to what was already known on archæological questions in Palestine from the earliest to the latest period of its history. A glance at our lists enables us to say what exists at any spot marked on the map, and to give a fair estimate of the antiquity and importance of the remains, which can often be dated by comparison with examples of known periods.

In conclusion I would point out the observations made with regard to the physical character of the country, and especially as regards the main features of its geology.

The comparison of ancient and modern physical characteristics of the country, both as regards the natural features and in respect to the cultivation of the land, will be one of the most interesting outcoming results of the survey.

For data as regards climate, we have now four meteorological stations established in the country, where barometrical and thermometrical observations are taken daily with great regularity; the first at Jerusalem, the second at Nazareth, both in the hill country, the third at Jaffa on the sea-coast, the fourth at Gaza in the plain. In addition to which, we carry with us in camp a full set of meteorological instruments, a mercurial barometer, wet and dry bulb, maximum and minimum, a minimum ground, and a black bulb-thermometer. With these also are a rain gauge and a set of ozone papers. Many of the observations are interesting. It is found that with the east or khamsin wind—a most trying and depressing weather—there is an entire absence of ozone in the air. We notice also that mirage is not dependent on heat alone, but requires a certain amount of moisture to develop it fully. The barometric observations in the Jordan valley are very curious; the rise and fall of the instrument appeared to have no reference to the storms which we experienced, whereas in the hills the barometer is a safe guide.

The comparison of the rainfall and seasons with those of ancient historical times will, therefore, be obtained with great accuracy.

In addition to this we are able to show for the first time on the map the condition of the country as regards vegetation; gardens, orchards, and oliveyards are marked, as are also the districts covered with thickets or *hish*, which on the western slopes are very extensive. The map shows also the Forest of Sharon, hitherto unknown, and consisting only in stumps of felled oak trees towards the south, whilst in the northern part of the plain the trees still extend over the country for miles. The palm trees of the Jordan valley, mentioned as late as the 7th century, have disappeared from Jericho, but in the northern basin, near the site of Scythopolis, we found a great number of stunted trees, many of which have individual names.

The general result to which the work seems to point is, that in the seasons, rainfall, and natural vegetation, modern Palestine resembles very closely that of Biblical times. There is, however, a very marked change in its cultivation, and the extent of the ancient fertility will be approximated, it is hoped, when the map is complete.

The ancient cisterns, pools, aqueducts, and methods of water supply and irrigation, are all carefully marked on the map, and their date—Jewish, Roman, Christian, or Saracenic—is generally pretty easy to determine. The terraces, wine and oil presses, vineyard walls, and dry-stone towers, which appear to be of great antiquity, are carefully noted. Signs of ancient cultivation are often observable in the wildest of the present thickets, and there is no doubt that the vine, now almost unknown, was once cultivated throughout the whole hill country of Palestine and along the edge of the plains.

Not less important is the study of the geology of Palestine. As a contribution to what is already known, I have prepared a sketch map, showing the main divisions of the strata, and in the more interesting parts the boundaries have been carefully determined. This map will form a sort of reconnaissance, from which a professional geologist may advance to the study of details, and by the use of which much time and trouble may be saved. The special observations of dip and lithological character throughout the part of country surveyed amount now to nearly 200. No such general description of the geology has, I believe, been as yet made. The most famous work on the subject is that by M. Lartet, the French geologist. The study he has given to the part of Palestine which he visited personally is minute and accurate, but his map, which in many parts is an absolute blank, in others is disfigured by false conclusions, drawn apparently from hearsay evidence.

The main results of the geological survey at present may be enumerated as follows:—

In the north we have been able to show the geological construction of the plain of Esdraelon, and have discovered an important volcanic centre and upwards of forty basaltic outbreaks hitherto quite unknown. We have marked the extent of country covered by black basalt south of the Sea of Galilee never as yet shown. The trappean outbreak on Carmel has also been carefully examined and sections made of its formation, with observations of the dip of the strata, which are very curious. Southwest of the mountain we found a tertiary volcanic lake, and traced the outbreaks along the west as far south as Jaffa. The map shows the upheaval of the coast-line, and by fossils obtained along this formation it will be possible to fix the geological data. Three or four interesting sections are now extended across the country, as in the latitude of Nablus, where the nummulitic limestone is found on the upper part of Ebal and Gerizim, and in the line of Jerusalem and of Nazareth.

The most valuable observations are, however, those which refer to the depression of the Jordan valley, and I may, perhaps, be permitted to enlarge rather more fully upon these.

The western shore of the Dead Sea is bounded by steep, precipitous cliffs, at the feet of which are marls and conglomerates belonging to an ancient sea-level. At the top of the cliffs are other marls of a similar character, giving a second level, and from these the marl hills rise rapidly to a third level, that of the Bukeya, or raised plain, situate at the feet of the main chain of hills and below the convent of Mar Saba. This gives a series of three successive steps, each of which seems at some period to have formed the bed of a lake under conditions similar to that of the present sea. There is, however, a very curious feature observable, the narrow valley running north and south and separating a line of chalk cliffs immediately adjoining the Bukeya from the hard dolomite beds of the main chain. It is, in fact, evidence of a fault or sudden fold in the strata, the existence of which seems to have been hitherto unsuspected.

Advancing north we find a broad basin north of the Dead Sea in which Jericho stands, and which has an exact counterpart on the east side of the valley. The same contortion of the strata is remarkable, and the higher level is occupied by beds of a reddish marl, and of the famous stinkstone or bituminous limestone, evidence that at this early geological period the lake existed under conditions similar to those of the present Dead Sea.

From this point we succeed in tracing an ancient shore line at a level equal to the second step for a distance of over twenty miles up the valley. From thence a narrow gorge with strata less violently contorted extends for some ten miles. The valley then broadens again, and the shore deposits and red marl reappear and extend along the side of the upper basin south of the Sea of Galilee.

I have submitted these observations to professional geologists, and their opinion confirms that which I formed on the spot—that the Jordan valley was caused by a sudden and probably violent depression in times subsequent to the late cretaceous period; that it presented at first a chain of great lakes, and that no less than three levels for these lakes are to be found, the area of the most ancient being the greatest; that the effects of denudation or other natural causes working gradually have continued since the time of the first great depression to lower the level, and that the evaporation increasing with the increased temperature the area of the lakes has also diminished. Finally, that the same action is in all probability still slowly proceeding, as evidenced by changes in the depth of water in the Dead Sea during modern times.

I have endeavoured to show briefly the method and results of our work—physical, antiquarian, and geographical. Much of interest yet remains if health and means do not fail us. The plains of Philistia, the southern shores of the Dead Sea, the numerous ruins of southern Judah, have yet to be explored. In the north, Phœnicia still is unvisited, with its ruins, inscriptions, and natural subjects of interest, including the newly found mines of Saidā. The Sea of Galilee and the mountain of Safed, where synagogues and ruined towns as yet unknown are reported

by travellers, still demands patient research. I hope, however, that if our future success be equal to that we have already obtained, we shall be able by the summer of 1876 to commence the publication of the Ordnance Survey of Palestine as completed from Dan to Beersheba.

CLAUDE R. CONDER, Lieut., R.E.,  
*In Command Survey of Palestine.*

14th July, 1874.

## THE JERUSALEM RESEARCHES.

LETTERS FROM M. CLERMONT-GANNEAU.

### XI.

JERUSALEM, May 31, 1874.

I HAVE just rediscovered, within the Haram, an inscription] of some importance, pointed out by several Mussulman authors. Up to the present time we have not been able to establish its existence: it is a stone on which are inscribed the dimensions of the Haram measured at a very ancient period.

Ancient  
 Arabic in-  
 scription  
 giving the  
 dimensions  
 of the  
 Haram.

The Arab chronicler of Jerusalem, Medjred Din (p. 29 of the text edited at Boulaq), after having recorded that Hafiz ibn Asakir assigns to the Haram 755 royal cubits of length and 465 cubits of breadth, quotes this passage of one of his predecessors, the author of the *Muthir el Ghoram*, from which he repeatedly borrows:—"I saw, a long time ago, in the north wall, above the door adjacent to the Bab ed Douidariyé, inside the surrounding wall, a slab on which are inscribed the length and breadth of the Haram. These measurements do not agree with what we have stated above. It is there said that the length is 784 cubits, and the breadth 455; the nature of the cubit is specified, but I was not able to see if it was the cubit mentioned above, or another, on account of the writing being injured."

The Persian Hadji, Nasir ibn Khosrou, who came on pilgrimage in the year 438 (A.H.), and consequently before the Crusades, saw this slab also. "On the northern side, which is contiguous to the Dome of Yakub (on whom be peace!), I observed an inscription on a tablet, to the effect that the Mosque was 704 yards long and 455 yards by the 'malak' (measure)."—*Major Fuller's translation.*

This inscription I have just found by accident fitted into the wall of one of the many Arab *Médrésés* which adjoin the northern face of the Haram; it is immediately to the right, coming out of the *Bab el Almé*, which seems to correspond to the "*Bab ed Douidariyé*:" of the

ancient account. In order to see it, you must mount the steps of a stair leading to the upper floor of the *Médrésé*. The stone is of hard *mezze*, and the writing *neskky*, carelessly traced. It is composed of four lines separated by four horizontal strokes; the first being broken, with nothing on it but the traditional invocation, "*Bismillah er rahman er râhim*." After this I read, without much difficulty, as follows:—  
 "The length of the Mesjid is seven hundred . . . and four cubits, and its breadth is four hundred, fifty, and five cubits, the cubit of . . ."

The length is broken off in the tens, but we cannot hesitate between thirty (*thalathin*), and eighty (*thamanin*): according to the author of the *Muthir el Ghoram*, the last number would be the true one. Nasir seems as well to have been embarrassed in the reading of the last number, and to have omitted altogether the doubtful number of tens. The last word, containing the designation of the kind of cubit, is hard to make out; it was also hard in the time of the author of the *Muthir el Ghoram*. Nasir does not hesitate to write the word *Malak* (of the king), but the appearance of the original makes me doubt the exactness of this reading.

Now that we are on this point, which is not without interest, let me notice further that the author of the *Muthir el Ghoram* gives as dimensions of the Haram, measured by the line, in his time, 683 cubits for the length of the east side, and 650 cubits for that of the west; the breadth, taken outside the surrounding wall, being estimated at 483 cubits.

In another passage (p. 377) Medjir ed Din also gives us the result of his personal observations on this point. He measured the Haram with a cord twice over, and found for the length, north to south, from the Mihrab of David to the *Bab el esbat* (not counting the walls), 660 cubits (the common cubit), and for the breadth, between the cemetery of *Bab er rahmé* and the *Médrésé* of Tenguiz, 406 cubits.

We have now before us very different figures and divergences, the more difficult to harmonise because they spring from the differences in the cubit employed; further difficulties are the manner and points of measurement, and the broken condition of the inscription quoted; all perhaps evincing, which would be of interest to us, real variation in the extent of the Haram at certain epochs in the Mussulman rule.

I have already informed you [in a private letter] of the existence of mosaics within the arcades of the outer wall of the Sakhra. It results from this fact that between the period when these arcades were opened and when they were completely covered by the fayence tiles now placed on them, they passed through an intermediary stage; that is, they were built up and transformed into little niches, the interior walls of which received a rich ornamentation of mosaics in coloured and gilt glass. If, as I have said before, these arcades were open and formed a part of the gallery in existence at the time of the Crusades, we must admit that this transformation is later than the Crusades, and the

Mosaics in  
the exterior  
arcades of  
the Sakhra.

addition of the mosaics to be the work of the Arabs, perhaps that of Saladin.\*

We know that Saladin must have subjected the Sakhra to many changes in order to efface the traces of Christian worship which had made the Mussulman sanctuary the *Templum Domini*. These mosaics are good enough, in colour and design, to belong to such a date. Thanks to the kindness of the Memour, who uncovered a second arcade next to the first, I ascertained that each arch had received the same ornamentation. The mosaics had disappeared from this arch, leaving marks in the easing to prove where they had been placed. M. Lecomte made a careful study of these mosaics, shattered as they were, and has succeeded in restoring the principal subject of the decoration in accordance with the position of the colours. You will receive, if not by this mail, at least by the next, the result of this restoration. By the intersection of the pattern, crosses are formed, to which I think it would be difficult to assign anything beyond a geometrical origin and value.

The presence, duly ascertained, of mosaics outside the Sakhra, is a fact of much interest in the history of this building, because it had been often doubted, in spite of the formal affirmation of the ancient descriptions. From John de Wirzburg to Medjred Din, all authors agree in saying that the Sakhra was adorned with mosaics inside and outside. The last trace of this system of decoration has disappeared from the inside, since the general application of the fayence—that is to say, since the 16th century.

At the present moment they are proceeding to the repair of the inclined roof which covers the lower sides of the Sakhra. In the progress of this work the lead is being removed, so that it is now possible to penetrate to the interior of the framework, and to see the whole central drum exposed from the ceiling to the springing of the roof. We can thus examine at our ease the whole external face of the drum. We have been enabled to ascertain the total absence of the mediæval dressing in the materials used in the work. There is only one block in one of the buttresses which bears a trace of it. The materials in the buttresses differ in general from those of the drum itself. They are large, and show a dressing worked with a point, which I think is ancient. It is found on several large blocks which are visible in certain parts of the Haram, which I believe to have been utilised by the Arabs.

We have only found one mason's mark on all the stones examined. It is quite of the same kind as that which we have noted in the exterior outspread wall.

We have found in a magazine close to El Aksa a fragment of a magnificent vessel in basalt, with a bluish tinge and a very close

Exposure of  
the drum of  
the Sakhra

Vessel in  
basalt.

\* Medjred Din says (p. 434) that Al Mostanser Billah came to Jerusalem in 861-2, A.D., and renewed the mosaics of the Sakhra above the marble of the exterior.

grain. Sarcophagus or bath, this vessel, the fabrication of which must have been extremely costly on account of the beauty and the hardness of the material, must have been ordered for some great personage or some important use. The sides are not vertical, but widened out like those of a bath. The vessel increases 0·57 metre in depth, and 0·81 in length. The thickness of the sides is 0·11 metre, and the longest part preserved is 1·19 metres. At the end is an opening, perhaps made more recently to let the water flow easily.

Gabaon,  
Ebal, Geri-  
zim, Her-  
mon,  
placed near  
Jericho by  
the legend.

You will remember the Bedouin legend which I have already noted as referring to the tradition of Joshua stopping the sun at Jericho. The alterations of this kind in the history of Joshua are very ancient. We find very early this tendency to group round Jericho the places which hold the chief place in the history of the successor of Moses. Thus it is that we find Procopius, Eusebius, and Jerome, saying that Mounts Ebal and Gerizim, claimed later at Samaria by the Samaritans, are in reality not far from Gilgal. It seems that this grouping took place earlier than the Christian writers whom I have cited, and that they borrowed their theories from the Jews, who maintained them out of hatred to the Samaritans.

The transference of the miracle of Gibeon seems to belong to the same epoch, if not to have been determined by the same cause. In any case it is expressly indicated by the Russian Patriarch Daniel, who says (p. 56), "To the west of this convent (of the Archangel Michael at Gilgal) is a fountain called Gibeon. It is lofty and very great. It is above this mountain that the sun stood still for half a day, until Joshua had overcome his enemies when he fought against Og, King of Bashan, and Sihon, King of the Amorites, and all the land of Canaan. When Joshua had overcome them, the sun went down behind the mountain of Gibeon. We see a great cavern in this mountain. Here it is that our Lord Jesus Christ fasted forty days and forty nights, and, when he was a hungered, the devil drew near to him." So that the mount of Joshua, when pointed out, is the mountain of Gibeon.

Not only Ebal, Gerizim, and Gibeon have been transported to Jericho, Hermon has also shared the same lot. The Onomasticon, Antoninus, St. John of Damascus, and a number of pilgrims, agree in placing the Hill of Hermon near the Jordan, not far from Jericho.

The vase of  
Bezetha.

The excavations I had undertaken in the caves of the Via Dolorosa, and of which I shall give you an account presently, have led, among other things, to a discovery of great value.

In the deepest of the newly found rock-cut chambers I have explored, and under the great pieces of broken ceiling which testify to some great destruction on this spot, we found a large terra-cotta vase, which we could only bring away in pieces. Fortunately the vase, although broken, is so nearly complete, that it has been possible to reconstruct it by gumming the pieces together. You will find enclosed two photographs, pending the arrival of the original.

This cup is in terra-cotta, very hard, and of a grey colour. It

measures 0·36 metre (nearly 14 inches) high; it is mounted on a low foot of simple design, and is very capacious, with a maximum circumference of one metre. It has no neck, the opening being very small, with a little collar 0·235 metre in diameter. It is ornamented by two handles, each formed of a double tress elegantly twisted. On the upper part of each handle is cut a small rectangular cavity, towards which two large serpents appear to be turning as if to drink. They are in relief, symmetrically disposed, and climbing along the sides of the vessel; their tails are lost in the base of the handles. Immediately below each handle is sculptured in relief a Gorgon's head.

Further, close to either handle is twice impressed a kind of small medallion, representing a male figure, nude, upright, the left arm raised and leaning on a long lance or thyrsus; the right arm extended and pointed to the ground. The right hand appears to hold an indistinct object over another also indistinct placed upon the ground.

The external mouldings of this little figure, of which I shall speak presently, are repeated six times on one vase.

At nearly equal distances from the two handles, and on each side of the vase, is repeated twice a second moulded medallion of larger dimensions, representing a naked Mercury, whose body is seen in full, the head turned to the left. He has the petasus, and has his tunic tied across the breast and thrown behind him; he holds the caduceus in his left hand, and raises with his right an object which seems to be a purse—the frequent attribute of the Hermes of antiquity.

In the circle which surrounds him are four objects, which appear to be meant for fir-cones. The medallion is encircled by a small border, formed by means of a moulded repetition of six points arranged in a circle round a seventh central point. This ornament is reproduced in profusion on the rest of the vase.

On one of the two nearly symmetrical segments into which the vase is divided by the handles, the medallion of Mercury is flanked on the left by the small medallion previously described, and to the right by a symbolic group which demands a description by itself. Under a sort of portico, divided into three by four little fluted columns, is seen in the central intercolumniation a vessel with two handles, the mouth very wide. In the left-hand intercolumniation is an altar, lofty, narrow, and fluted, reminding one of the Assyrian altars, surmounted by eight little spheres disposed in form of a pyramid. In the right-hand intercolumniation is a second altar the same as the first, but with a few essential variations. The number of spheres is only seven, and a rectangular tablet is fixed in the altar at its middle.

Immediately below the porch, and corresponding with the three intercolumniations, is stamped in relief a group of three little figures representing a feminine personage, draped, the left hand supported by a long spear, the right hand directed towards the ground and holding some undetermined object. Thus these figures appear to be the repetition of the same *ektypon*, reproduced again twice, but singly on this

side of the vessel. The altar on the right is also repeated once by itself.

I must lastly mention, in concluding this segment of the vase, a large leaf, with its branches in high relief, stamped beside one of the serpents.

If we pass to the opposite segment, we find the same elements arranged in nearly the same way; but we notice that the little figure, three times repeated, is not grouped as in the other part of the vase, that the vase between two columns is reproduced apart, and that the altar on the left, but not on the right, is repeated by itself.

The lower half of the vase is decorated by two borders, formed by concentric semicircles with seven extremities. This type, reminding one of the seven-branched candlestick, appears several times in the upper part. Below is a third circle, formed by the juxtaposition of a lozenge. Below this again, the same type grouped in triangles, the point of which is prolonged to the foot, completes the decoration.

I forgot to say that the collar of the vessel is adorned with five or six parallel lines of small mouldings, made freely but not without taste.

One curious matter of detail is that the whole surface of the vase, especially in the places covered with mouldings, is thickly set with little holes made before the baking by the print of a sharp chisel or a knife. This cannot be the result of an accident. On the other hand, there must have been some serious motive in covering the mouldings with holes which spoil the figures. Perhaps it was to assist the baking.

This great vase, so rich in ornamentation, is nevertheless executed with a certain amount of negligence. Its form is elegant, but it wants symmetry and is not perpendicular; the handles are put on awkwardly; and the details of the mouldings show carelessness. All round it may be seen the marks of the fingers which repaired the accidents produced in removing the mould. The arrangement of the figures and the symbols seems done by chance and without rigorous method. Nevertheless, such as it is, this vessel, with all its imperfections, is most remarkable from an artistic point of view.

The profuseness in detail and the carelessness in execution, lead me to think that it is a kind of specimen, the essay of some artist wishing to make a model, which he might subsequently reproduce with greater care, perhaps in metal.

This is the place to record that we found, beside the vase, two fragments of terra-cotta, which did not form part of the vase, as the colour and form show, but which present striking analogies with it. We observe in the two fragments, which fit together, the same mouldings in the upper part; a Gorgon mark like that on the large vase, but of less dimensions; the same element of ornamentation in the concentric semicircles; and an absolute reproduction, probably obtained from the same mould, of the little male figure leaning on a spear. A hollow impress of palm leaves completes the decoration.

The juxtaposition of these two similar vases seems to indicate the presence of a local manufactory rather than the result of an importation, as we might be tempted to suppose, when we reflect how sterile Jerusalem appears to us at the present time from an artistic point of view. We know that in imperial days they still made at Arretino vessels in red clay, with ornaments and figures in relief, cast in moulds, and consequently very different from the ornamentation of the Greek vases of the old style, which were modelled by the hand alone.

After the description of the vase, it only remains for us to determine its date, its use, and the symbolic signification of its complicated decoration.

If we take into account the place where we found it, and consequently the history of Jerusalem, we are inclined to attribute the vase to the Roman period; that is to say, to see in it an object belonging to *Ælia Capitolina*. The fabrication and style accord very well with this hypothesis.

The general form of the vase and the disposition of the mouth appear to imply the existence of a lid similarly ornamented, which has disappeared. To judge by the breadth of the mouth and the stability of the foot, the vase departs from the type of the amphora, and belongs to the category of vessels from which water was drawn, not poured out. It belongs, in fact, to the *κρατήρ* class, although the handles are a little too highly placed for the classic *κρατήρ*, whose handles, generally above the vase, are more often destined to move than to carry the vessel.

The vases might have had a religious or simply a domestic use; that is, to serve as libations offered to the gods, or to be employed at ordinary repasts. In both cases mixed liquids, generally water and wine, were drawn by means of the *simpulum* or the *cyathus*—a kind of long-handled spoon which served to fill the cups. Even when the *κρατήρ* was only destined for profane use, it preserved a religious character. It was the custom, in banquets of ceremony, to have three vessels of different shapes. The first, according to Suidas, dedicated to Mercury, the second to Charisius, and the third to Jupiter the Etruscan. According to others, the first cup (some say the third) was consecrated to the food deity (*Ἀγαθοδαίμων*). Three make the cup of Health. One cup bore in its decoration all the signs of a religious vase, and I am tempted to believe that it was destined for sacrificial libations, these vessels being, as a rule, not only dedicated to divinities (as *ἀναθήματα*), but employed for them as in the communion service.

The four serpents which are proceeding to drink out of the receptacle hollowed for them in the handles the drops which have escaped from the *simpulum*, appear to represent the *genii loci*, and remind me of the serpentine form of the *Ἀγαθοδαίμων*, to which in so many ancient monuments libations are offered.

The Mercury twice repeated recalls the cup consecrated to Hermes. In this case, might the fragment be a piece of the second vase?

The little male figure six times repeated on the great vase, and for a seventh time on the fragment, is not easy to make out. It is singularly like the Bacchus which appears in the coins of *Ælia Capitolina*, notably on those struck during the reigns of Antoninus and Gordian III. If this figure be an imitation of the numismatic type, the uncertain gesture of one figure may be that of the right hand holding a bunch of grapes to a panther upright or sitting down. If necessary it may be regarded as a hand letting the wine flow from a *carchesium*.

In any case, the presence of Bacchus is not at all strange on a vase destined to contain wine. Is it the Charisius of Suidas? The pinecones which surround the Mercury might perhaps be better for the Dionysiac attributes.

As to the female figure, I avow my inability to explain it at present; but I doubt not that European archæologists will succeed in making it out. Can it be Hygeia?

The presence of the vase and the two altars grouped under the same porch completes the religious aspect of one vase. We must note that the vessel in the ornamentation is of a type very different from that of the vase itself. The existence of the two altars and the curious form they possess are points of the highest interest. The number of spheres contained in the cavity of each altar is not indifferent. Whatever be the nature of the objects represented, it is certain that the number seven in the first case recalls the cosmic conception of antiquity of five planets, together with the sun and the moon; the number eight in the other case is that conception together with the eighth element, Phœnician *echmour*, which represents the seven all together. I do not insist on this symbolic value of the numbers. I confine myself to remarking the employment of seven points disposed in a circle, six round a seventh, and the seven extremities of concentric semicircles.

We may ask again how it happens that this vase and the similar fragment have been picked up in such a place, that is to say, in the rock-cut chambers. It is very improbable that the vases have been met with in their original place, that is to say, in a sepulchral cave. The *débris* of all kinds with which we found them mixed up would rather make me suppose that they have been thrown at some remote period into these caverns pell-mell with refuse. If they ever served for sacrifices offered by the pagans of *Ælia Capitolina* at the Sanctuary of Jupiter, which stood not far off, it is very easy to understand how, at the official triumph of Christianity, these vessels of a proscribed worship would be ignominiously thrown away with the most vile rubbish. If that is so, the earthquake which destroyed the caverns took place after the religious reaction.

Whatever opinion be adopted as to these difficult questions, the vase, which I propose to call the Vase of Bezetha, remains one of the most precious archæological objects that Jerusalem has yet produced; and I

do not doubt that the interest it will excite among *savants* will equal the curiosity that it will excite among the public.

C. CLERMONT-GANNEAU.

P.S.—Capital in the Haram-esh-Sherceef representing the Presentation of Christ.

MM. Palmer and Drake during their first journey to Jerusalem remarked and pointed out to me on the minaret at the north-west angle of the Haram a marble capital with mutilated figures. We went to see this interesting relic, and I send you a drawing of it by Lecomte. Although the heads have been broken by Mussulman iconoclasts, it is not difficult to make out the scene portrayed. On the left the old man Simeon receives the infant Jesus from the hands of the Virgin enveloped in swaddling clothes; on the right is also a personage round whose head is a nimbus, who seems to be St. Joseph. The same subject appears to have been treated in the three capitals placed in the same minaret, but the other two have been a great deal more broken. Not only the capitals, but also the columns and the bases which support them, seem to have made a single whole. The three capitals were cut so as to be placed between two walls at right angles. I think that it is easy to divine whence they came. Phocas, describing the *Templum Domini* (the Sakhra) of the Crusaders, says that in the interior, opposite to the cave, there are two little chapels or chambers (*καμαραι*), in which are represented, in one, “the meeting (*ἐπάντη*) of the Lord Christ, for it is here that Simeon received him in his arms;” in the other, the vision of Jacob. It is highly probable that we have in these two capitals the fragments taken from the chapels after the restoration of the *Templum* to the Mussulmans by Salahdin. The sacerdotal costume worn by Simeon is extremely interesting.

## XII.

The period of the Crusades is no exception to the extreme poverty of inscriptions which appears to be the peculiar character of Palestine. Written traces of the western rule in the Holy Land are of the greatest rarity. During all the years that I have hunted for inscriptions in this ungrateful soil I have met but five or six texts belonging to the period, and even they were for the most part fragmentary.

Tomb and portrait of a Crusading Bishop of Palestine, contemporary with St. Louis.

It is a fact which at first seems the more singular because the period is comparatively but little removed from us, and because the passage of the Occidentals, although rapid, has left a broad and deep impress upon the architecture of Palestine. I have elsewhere established technical and invariable rules which enable us at first sight and without any possible error to determine any stone cut by the Crusaders. The application of this law—much more certain than the observation, so delicate and so much disputed, of styles, and which permits us to determine the

date of monuments not only taken as a whole, but in their elements, to number up, so to speak, the materials employed by the hands of the Westerns—has demonstrated the prodigious movement of construction which took place during this brief period. It is natural, then, to think that the men who knew how to use stone would not have neglected to confide to it the written record of their memorable deeds.

This almost total absence of mediæval European inscriptions can only be explained by a pitiless reaction against everything which could recall a conquest odious to the Mussulmans, and a yoke borne with impatience by even Oriental Christians.

Therefore the discovery of a Crusading text even mutilated, on the very soil, is always a piece of good fortune for science. In our last excursion to Jaffa I found two. The first (drawn by M. Lecomte, No. 48), engraved in large and splendid letters on a fine block of white marble ( $0.77 + 0.27 + 0.19$  metres), consists of two lines, of which only the middle one remains, and traces of a third line.

. . . er : augustus : io . . .  
[ . . . anno domin]ice incarnatio[nis]  
[ ti ] .

I put between brackets the restorations which seem probable. I think that of *anno dominice incarnationis* will be admitted without difficulty. This manner of dating the year of the incarnation of the Lord, and the way of writing *dominice* (æ), are found in a number of the charters of the kingdom of Jerusalem in the eleventh and twelfth centuries (E. de Rozière, Cartulaire du St. Sepulcre).

The palæographic aspect of the letters, especially that of the T, tends also, if my memory serves me, to attach this inscription to the twelfth century.

The second inscription, which I brought from Jaffa (No. 49 in M. Lecomte's sketches), is much more interesting, first, because it accompanies a very curious iconographic monument; and secondly, because it offers great chronological precision. It comes from a Mussulman wely called Sheikh Mourad, and situated about 20 minutes W.N.W. of Jaffa.

This precious monument—it is only a fragment—consists of a slab of white marble measuring actually 0.70 metre in length, by 0.55 in height and 0.05 in thickness. The fragment is broken into two pieces, which fit each other exactly.

Here is portrayed a personage, full face, with a sharp beard, and mitre for head-dress, and holding the episcopal crozier; and its position, hard to the left, shows that we have to do with a bishop and not a mitred abbot.

The head and the shoulders are surrounded by a trilobe resting on a little column with a capital. In the corner to the right of the trilobe is represented an incense-bearing angel, with a nimbus and wing, who censes the head of the bishop. This detail is excellent in its movement.

The general drawing is remarkable for its primness and precision ; it recalls at first sight the style of the thirteenth century, and everything, as we shall see, justifies this impression.

We have here one of those flat tombs which were placed on a level with the ground, and which are so numerous at this period.

I would willingly believe that the slab was not only engraved, but also inlaid ; the drawing, deep and narrow, with vertical strokes, was probably destined to receive some hard and coloured matter ; we remark, besides, in the mitre and the crozier, deep holes, in which may have been inlaid enamels or glass to imitate precious stones.

The mitre is rather higher than those which we see on monuments of the twelfth century.

The pastoral staff terminates with the head of an animal ; it was meant to be carried in the left hand ; the right, which has disappeared, is occupied, in most similar monuments, in giving the benediction.

There only remains of this slab a piece comprising the left half of the face to the springing of the shoulders. All round it ran a Latin inscription in mediæval characters forming a frame. A few words only remain, which I will examine immediately.

The back of the slab has also received a later inscription in Arabic, of which this is the translation :—

“ In the name of God, merciful and element. Certainly he restores the mosques of God who believes in God and in the day of the Resurrection, who makes prayer, who gives alms, and who only fears God ; perhaps he will be [in the number of those who follow the paths of goodness]. The construction of this blessed mosque has been ordered by him who was poor before the Most High God, the Emir Jemal-ed-din, the son of Isheik, whom God have in his mercy. The year seven hundred, thirty-six . . . ”

This inscription was written on the back of the other, the first part of which is borrowed from the ninth sonnet of the Koran (v. 18). The poem called “ On Repentance ” is disposed in such a fashion as to show that the slab was cut up into five or six pieces in the year 736 of the Hegira (A.D. 1335). They cut in the original slab a piece nearly square, on the reverse of which the Arab inscription was cut. This slab subsequently underwent a slight mutilation, which took off the lower left angle with a part of the face and breast of one side, and the first words of the new inscription on the other. We know from historians, and also from an authentic inscription of Bibars, preserved at Ramleh, the exact date of the definitive expulsion of the Franks from Jaffa : it was, according to William of Tyre, the seventh of March, 1268, in *Redjeb*, 666, according to the Mussulman authorities. Our monument could not, therefore, *à priori*, be later than this, which, taking it in a minimum limit, brings us to the middle of the thirteenth century.

We come next, having arrived at a historical limit of time, to the interpretation of the inscription, or rather the fragment of Latin

inscription which ran round the slab. I read it, with restorations in brackets:—

[Anno millesim]o: C<sup>o</sup>.C.: quihagesimo: octavo: in festo: sanctorum: o [mnium? .]

If we regret the loss of the Bishop's name, we have at least the satisfaction of possessing almost entire the part which probably contains the date of his death.

The day is specified by the words *in festo sanctorum*; as for the next word, I am not certain whether it begins with an *o* or a *c*: in the former case *omnium* must be indicated: it will be the day of All Saints.

The preceding words contain the year; it is impossible to mistake *quingagesimo sexto* in spite of the orthographic irregularity. C<sup>o</sup>.C. is for *ducesimo*. There remains the *millesimo*, of which the *o* remains, with the broken *m* preceding it.

The date is therefore 1255, probably the day of All Saints. The text is unhappily too much destroyed to inform us who the personage was.

In the absence of certain indications these hypotheses are possible:—

1. The slab may have been, like so much building material, transported to Jaffa from some other neighbouring city, Ain, for example, the site of a bishopric.
2. It may have covered the remains of a bishop of some other diocese who died at Jaffa during the French occupation.
3. It may belong to a bishop of Jaffa.

In the two first cases all conjecture at the exact truth would be without foundation; we have only two positive elements of solution, the date of the death and the rank of the deceased, which are insufficient, at least with the sources of information which I possess here. I have, in fact, vainly searched through the *Oriens Christianus* of Lequien, and the *Familles d'Outre Mer* of Ducange, for the name of a Latin bishop, archbishop, abbot, or prior, who died in Palestine in 1255.

The third hypothesis, which, until proof to the contrary, rests the most probable, deserves a few moments' consideration, especially as it raises a curious historical question—that is, whether there was or was not a bishopric at Jaffa during the Crusades.

Before the arrival of the Franks, Joppa, an important centre, and a town of special veneration, as having been the sojourning place of St. Peter, was an episcopal seat; we know that certainly, and know also the names of several of its bishops: Fidus, Theodotus, Elias, Sergius.

Under the Crusaders it appears, at least at first, to have lost this rank, for it does not figure in the list of Latin bishoprics as they are preserved in the contemporary documents. Jacques de Vitry, Bishop of Aire in 1216, says expressly in his history of Jerusalem, that the city of Jaffa had no bishop, but was under the immediate jurisdiction of the priest and canons of the Holy Sepulchre. He adds that it was also the case with Nablus, which was similarly without a bishop, and belonging to the abbey of the *Seraphim Domini*. He remarks, *à propos*, that many other cities of Palestine, ancient episcopal seats, Greek and Syrian, are

in the same situation, and have been united by the Franks to other bishoprics.

But Lequien says that, notwithstanding this statement, after the date of Jacques de Vitry he finds mention of bishops of Jaffa, and he cites a passage of Mich. Ant. Baudrand (Tom. i., Geog., p. 527, col. 1), in which it is written that Jaffa, city of Palestina Prima, was formerly a bishopric under the jurisdiction of the Archbishop of Cæsarea. He uses the word *olim*, it is true, which is somewhat vague. The Latin bishops of Jaffa mentioned by Lequien are,—

1. Guy de Niman, died 1253.
2. A bishop whose name was unknown, who went in 1273 to the Council of Lyons, died 1274.
3. John de St. Martin, died Dec. 23, 1374.

I have nothing to say about the third bishop, because I have not with me the author referred to by Lequien to confirm his conclusions. I confine myself to the fact that since one lived in 1374, and the others in 1274, it is impossible that either the second or the third could be the bishop on this monument. Besides, Jaffa was surrendered in 1268. Guy de Niman remains, who died in 1253; the bishop of my slab died in 1255, so that there is chronological incompatibility. Nevertheless we must not forget that the *Estoire de Eracles Empereur*, from which Lequien borrows this fact, contains in matters of date very grave errors, and it is very easy in manuscripts to get such confusions as MCCLVIII. and MCCLIII.

But against this identification there is a much more serious objection, which at the same time puts in question the existence of a bishopric at Jaffa altogether. The passage of the *Estoire de Eracles* is as follows:—

“A MCCLIII amourent le rois Henry de Chipre et l’evesque de Jaffe Guy de Nimar.”

Now a MS. variation gives the word *Baffe* for *Jaffe*, which would be Paphos (Baphe) in the island of Cyprus. M. G. Rey, in his edition of the *Familles d’Outre Mer*, has adopted this reading, and admits that Guy de Niman, whom he calls Mimars, and makes die in 1272 instead of 1273, was Bishop of Paphos.

In another passage of the same *Estoire* the word Baphe is read with a variation of Jaffa. “Li maréchaus . . . manda à Baphe pour les galères . . .”

The same error may have occurred with regard to the second Latin Bishop of Jaffa on Lequien’s list, and in exactly the same way.

Here is the very existence of our Latin bishopric of Jaffa deduced from the names of these three bishops, compromised, especially if we remember the very distinct statement of Jacques de Vitry. Nevertheless, in the face of this negative argument, we must place an official document, a letter of Pope Alexander III. addressed to Peter, Prior of the Holy Sepulchre (Cartulaire, pp. 291, 292), whence it clearly results—

- (1) That King Amaury and his homonym, the Patriarch of Jerusalem, had deprived the Prior of the Holy Sepulchre of the Church of

Jaffa, restoring it to its ancient dignity of a cathedral church, which it had lost through the violence and the occupation of the Heathen.

- (2) That the Pope, in spite of the protestation of the Prior, believes it to be his apostolic duty to maintain the restoration, at the same time advising that compensation be made in exchange.

The bishopric of Jaffa was, then, actually accomplished. The cathedral church could only be the church of St. Peter. As to the compensation, it very likely consisted of the Church of St. Nicolas, conceded by King Amaury in 1168.

I confess that it seems difficult to reconcile this fact with the assertion of Jacques de Vitry, who could not have been ignorant of it. However this may be, the facts seem sufficient to permit us to believe in the existence of a Latin Bishop of Jaffa, and, in this case, in the discovery of the tomb and portrait of one of them.

In any case, the certain date 1258 is only six years before the arrival of Louis IX. at Jaffa, two years before the death of the king, and in the time of John d'Obelin, Count of Jaffa, ten years before the definitive taking of the city by Sultan Bibars.

If the slab really belongs to the Bishop of Jaffa, it may very well be supposed that it lay originally in the metropolitan church of St. Peter. This church, constructed on the traditional site of the recovery of Dorcas, or Tabitha, frequently figures in the Cartulary of the Holy Sepulchre.

Once (p. 71), in the act of donation of the patriarch Ebremar, there is mention of the cemetery which depended on it. "*Ecclesiam Sancti Petri majorem, quæ et apud Joppenæ cum cimeterio ecclesiæ pertinenti.*"

One would say that the church, to judge by the expression "*apud Joppen*," was outside the city, like another church of Jaffa, that of St. Nicolas, which is said in the Act of Donation of Amaury to be situated without the walls and to the north (Cartulary of St. Stephen, p. 289).

These churches must not be confounded with that which St. Louis caused to be built by the Cordeliers during his stay at Jaffa, and which contained the altars, nor with that which the Knights Hospitallers possessed within the city—"in corpore civitatis."

Although some authors admit that the Church of St. Peter was south of Jaffa, we might perhaps suppose that the Wely of Sheikh Mourad from which the slab comes, and where probably stood the mosque built by the Emir Jemal in 1335, succeeded this Church of St. Peter, and that consequently our monument has never changed its place.

This substitution of a Mussulman for a Christian sanctuary is quite according to Oriental usage, and it would not be the least interesting thing about this precious fragment if it had enabled us indirectly to rediscover the exact spot on which this church stood, consecrating one of the most ancient souvenirs of Christianity. I may add that this conclusion is possible, but not necessary.

## XIII.

JERUSALEM, *June 25, 1870.*

Here are a few details on our recent expedition to Jaffa, with which I am very well satisfied. It lasted seventeen days. Starting from Jerusalem on the 3rd, we returned on the 19th. The journey was intended to verify certain points which have engaged me for a long time. It enabled me, not to explore completely, but to visit a triangular region having Jerusalem, Jaffa, and Ascalon for the three angles. The list of our camps will indicate the line followed and the centres of research: Abu Gosh, Bir el Main, Lydda, Jaffa, Yebneh, Ashdod, El Moghâr, Artuf, and Jerusalem. Our harvest is of two kinds, epigraphic and topographic, without counting archaeological observations properly so called, and an abundant crop of popular and rustic legends, which are to the Bible just as the popular tales, for example, in German are to the old German mythology.

I bring back twenty inscriptions, more than one per diem; all, with the exception of Nos. 12 and 20, are originals or squeezes.

1. Abu Gosh, Church of the Crusaders.—A mediæval *graffito*.
2. Kubab.—Mediæval inscription.
3. Amwâs (Emmaus).—Ancient funeral Greek inscription in a sepulchral cave.
4. Jaffa.—Monumental inscription in marble.
5. Do.—Sepulchral slab of a bishop or mitred abbot of the Crusades, with his portrait, and an inscription running all round: the personage is censured by an angel. The marble, which must have been of considerable dimensions, has an inscription behind it, which it has subsequently received, on the back, in Arabic inscription, date 736 A.H.
6. Do.—A Græco-Jewish funeral inscription of ΙΟΥΔΑ son of ΖΑΚΧΑΙ.
7. Do.—Do., incomplete, containing two feminine names with the word שְׁלֹמֹה and the beginning of another Hebrew word.
8. Do.—Do.
9. Do.—*Μνημα* of Reuben, son of Jacob the Pentaphile; inscription preceded by the sign *p*, in which I am inclined to see a Christian symbol.
10. Do.—Do., ANNA son of ΕΙΛΑΣΙΟΣ.
11. Do.—Do., do.
12. Do.—Do., do.
13. Do.—Two large vase handles stamped with the name of the potter.
14. Mukhalid.—Greek sepulchral inscription.
15. Do.—Slab with Greek sepulchral inscription.
16. Lydda.—Large Greek Christian inscription engraved in a column of the mosque.
17. El Moghâr.—Greek Christian sepulchral inscription.

18. Khirbet er Saidé.—Greek Christian inscription. Monumental and votive—half of this already known (Guerin and Conder).

19. Ancient Gate of Yabneh.—Fragment of pottery, with word ΑΘΑΝΑΣΙΟΣ.

20. Mijmeh el'adé, near Tell el Jezer.—*Bilingual inscription in Greek and Hebrew marking the limit of Gezer.*

I have no time at present to give you details of these inscriptions, which are a rich contribution to the scanty epigraphy of Palestine, and in which we may see promise of further results in searching again.

Let me call your attention particularly to the group of ten new inscriptions coming from Jaffa, eight of which are Græco-Jewish.

The new group belongs to the series which I have been the first to open up in Jaffa, all coming from the place which I showed on my arrival here to be the cemetery of the ancient Joppa, from which I have carried away so many curious inscriptions. There is here a valuable mine to work, and I am convinced that *hundreds of inscriptions* could be found here which might throw singular light on the Jewish world at the commencement of our era. I studied the question carefully during a four days' halt at Jaffa, and I ended in determining exactly the site and limits of this cemetery, which extends from the adjacent mamelon to Suknet Abu Kebîr, a length of more than 600 metres.

But the most important inscription of all, the discovery of which is the grand result of this campaign, is that of Gezer. I have already touched upon it in a few words written hastily from Jaffa.

Here, then, are new details on the subject, pending the full study which will accompany the original. I send you a drawing of the inscription, made by M. Lecomte with his accustomed care and ability. This may serve as a basis for the observations of *savants*. I was the first to establish the identity of Tell el Jezer (the Abu Shusheh of the maps) with the royal Canaanite city of Gezer, hitherto vainly sought and generally placed at Yasûr. I communicated this discovery to different persons at Jerusalem, and during my last stay in France I had the honour of reading before the Academy of Inscriptions a memoir on the subject, which was only partially published.

I now remember that, when I had finished the reading, the president of the Academy asked me if I had found on the spot any inscription confirming this identification, made, so to speak, *à priori*, and having for *point de départ* a little-known passage in Medjr ed Din.

I was obliged to confess that I had not in support of my theory any proof of this kind, and that I could only quote, outside my narrow base, the classical and critical arguments which from the time of Robinson have served to establish the principal Biblical identifications.

Very well;—this un hoped-for proof, improbable even in Palestine, where not a single corresponding example has been met with, I have had the great fortune to find.

At a very short distance from Tell el Jezer, on the east side, the text in question exists, engraved on a slab of rock nearly horizontal, and very nearly two metres in length.

It is bilingual: it begins with the Greek word ΑΑΚΙΟ... in characters of classical epoch, immediately followed by the Hebrew letters of ancient square form, of which nothing, I think, can be made except תהומ + נזר.

In the second word we have *the very name of Gezer just as it is written in the Bible.*

As to the first, I can see nothing else than the defective form of תהומ. The omission of the *vau* is perfectly admissible considering the remote period at which the inscription was written.

As for the signification of the word, it is clearly that of *limit*. The word is not Biblical, but it is frequently employed in the Talmud to determine the distance that must not be exceeded on the Sabbath day—תהומ השבת.

The Hebrew inscription must, then, be translated as *limit of Gezer*.

Is this the hieratic, or simply the civil limit?

Two facts appear to argue in favour of the first conjecture:—

1. The special acceptance of the word תהומ in the Talmudic language.

2. The quality of the city Gezer as belonging to the group of Levitical cities, so that the observation of the Sabbatical limits would be more rigorously observed than elsewhere.

I have no time to enter into the still obscure question of the length of a Sabbath day's journey. I reserve that for the special publication of this precious text, which will perhaps actually solve it, if it means really the Sabbatical limit and not a non-religious boundary.

I need not recall the well-known passage, Numbers xxxv. 2—34,\* where the limits of the Levitical cities and these suburbs are so exactly ordered. It may very well be that in the same radius round Tell el Gezer we may find at the other cardinal points similar inscriptions. I mean to look for them.

One particularity on which I must insist, as it may enlighten us on the real destination of this singular and unique inscription, is that of its position. The letters are placed so as to be read, not by any one who came from Gezer and intended to cross the hieratic boundary, but by one who coming from without sought to pass within. This makes me inclined to believe that we have not simply a warning for the Sabbatic rest, but a line of demarcation much more important and necessary.

Let me recall, *en passant*, the fact that Gezer was a frontier town of Ephraim, though I would not pretend to see a tribe-limit in this city boundary.

Gezer was a Levitical city (Joshua xxi. 21). "They gave [the

\* Ver. 5. "Ye shall measure from without the city on the east side two thousand cubits, and on the south side two thousand cubits, and on the west side two thousand cubits, and on the north side two thousand cubits; and the city shall be in the midst," &c.

Levites which remained of the children of Kohath] Shechem with her suburbs in Mount Ephraim, to be a city of refuge, for the slayer; and Gezer with her suburbs."

It is also possible that the Sabbatical limit was the same as the Levitical.

However that may be, our inscription fixes one point of some perimeter about Gezer. The operations of measurement which we shall proceed to make will perhaps show us whether this radius is one, two, or three thousand cubits, or whether it is of the length indicated by several authors as that of the ὁδὸς σαββάτου.

What is the date of the inscription? Palæographically and historically it seems that we may boldly assign it a date previous to Titus as a minimum limit.

I should not even hesitate to put it at the Maccabean period, during which Gezer plays so important a part, and becomes a political and military centre. The Greek and Hebrew characters may very well belong to the first century before Christ. The date, I believe, may thus vary between the two extreme points.

The name of Ἀλκιος does not help us in fixing it. Is it the name of a priest, or of a governor of Gezer? It indicates Hellenized habits which would be repulsive to the first Asmonæans, and which tend to bring our inscription down to Herodian times, in which Hellenism was flourishing.

As to the truncated form ΑΛΚΙΟ, that may be explained by the fact of the two texts, Hebrew and Greek, being placed end to end on the same line; and commencing one at the right and the other at the left, the engraver carving his Greek word after the other, could not find room for the whole word, his O abutting on the ? of the word *Gezer*. Besides, a broken place in the rock between the Α and the κ took up a portion of the space at his disposal.

I think that the limit of the protecting boundary was not marked only by this inscription on the level of the ground, and difficult to see, but, besides, by some salient sign, some landmark, or *cippus pomarius*, which has disappeared, the traces of which I intend to look for. The existence of indicative marks seems pointed out clearly in Numbers xxxv. 4—26.

To sum up, this discovery has for its chief results—

1. The finding of a Hebræo-Greek text of ancient date, very important in Jewish epigraphy.

2. The positive confirmation that Gezer is really at Tell el Jezer, as I had shown from critical considerations.

This startling confirmation of an identification obtained solely by an inductive method has its weight in other Biblical identifications established on the same principles, gives them legitimacy, so to speak, and confirms the degree of credibility which belongs to them.

3. The probable solution of the much disputed controversy of the Sabbath day's journey and the hieratic limits of Levitical cities.

4. A well-grounded hope of finding in the environs of Gezer and the other Levitical cities analogous inscriptions.

I propose to return to Gezer to carry off the stone, and to study the other questions which belong to this subject; above all to measure the distance of the inscription from the city.

Our topographic harvest is also abundant: we have collected more than sixty names which are not found in any of the maps hitherto published. Very few, however, have escaped Conder. Among them are certain discoveries and identifications of great importance:—

(1.) A *Jeba* south of Abu Gosh, which appears to be that where the inhabitants of Kirjath Jearim deposited the ark.

(2.) *Bezka* = El Yezek (El Yezek for El Bezek of Medjr ed Din) which plays an important part in the battles of the Crusaders with Saladin.

(3.) *Oyûn Kara* = Har-Rakkon and Mejarkon of the tribe of Dan (Joshua xix. 46).

4. *Zernûka* = probably by interverson, Sikron of the tribe of Juda (Joshua xv. 11).

5. *Dajûn* = the real *Kefr Dagon* of the Onomasticon, between Lydda and Yabneh, instead of the *Beit Dejen* hitherto wrongly admitted.

6. *Deir Eban*, close to *Ain Shemes* = the great *Eben* on which the ark was placed on arriving from Ekron (1 Sam. vi. 14).

7. The country of Dalila and the Kefr Sorek of the Onomasticon, a few minutes west of Rafat and near Sara, whence comes the confirmation of the Wady Sarar as the *valley of Sorek*.

8. *Ain Gannim* = (probably) *Umm Jina*, &c.

Study of the ethnical names of localities which present the most interesting forms from a linguistic and topographic point of view, hitherto entirely neglected. I have collected a large number, and I have generally observed that the ethnic form was more archaic than the name of the locality. Here is the germ of a law which has not yet been applied, and which reserves for us most unexpected discoveries for Biblical identifications.

Different  
observa-  
tions and  
legends.

I have already pointed out the very striking example presented in the form Midyeh (Modin). A man of Midyeh is called Mîdnâwy, in plural, Mîdâw'nè. The ancient word, mutilated in the name of the village, reappears entirely in the ethnical name.

Legend of Jalûd (Goliath) at Esdûd, in the very country; tradition of a *neby* flying to Hamâma, near Ascalon; legend of Sampson divided among several personages in the neighbourhood of Ain Shemeh, whence it would seem that the tomb of the Danite hero is at Wely Abû'l Meizar, at Ain Shemesh; (2) that Beit el Jemâl is Eshtaol (Judges xiii. 25, &c.) The considerable alterations in these confused traditions throughout a region exclusively rustic and Mussulman are a guarantee that they have a certain antiquity.

Plans of three unpublished churches: at Beit Nûba (mediæval); at Lydda (Greek, contiguous to the Latin church); at Yebneh (mediæval, with a portal of the purest Western style); an abundant crop of masons' Archæology.

marks; in the mosque of Ramleh a magnificent lintel ornamented with animals and Christian symbols; at Lydda a bridge constructed by Bibars out of the ruins of the Crusaders' Cathedral; application and striking confirmation of the law as to mediæval dressing at the church of Abu Gosh; fragment of a magnificent marble statue coming from Cæsarea; a beautiful marble head from Khalasa, &c., and a quantity of details more or less important, forming a mass of designs and sketches too long to enumerate.

July 8, 1874.

I told you in my last letter that I was most anxious to explore the neighbourhood of Gezer, persuaded that my inscription could not be the only one, and that we might find a series staking out the sacred limits.

*I have discovered a second, which is the exact reproduction and the most startling confirmation of the former. It is placed due north-west of the first, at a distance of 150 metres (169·6 yards). It results from this that the sacred boundary was a square, having its four angles at the four cardinal points.*

July 12, 1874.

I think I did not tell you in my last that we found between the first and the second inscriptions certain other characters, apparently Hebrew, cut in the rock. Lecomte remarked them first. I hesitate about the first and second; the third seems a *teth*, and the fourth an *aleph*.

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